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ECONOMIC AFFAIRS

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ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

PRODUCTION ASSOCIATIONS VIEWED

Moscow EKONOMICHESKAYA GAZETA in Russian No 14, Apr 83 p 15

[Article by N. Chumachenko, academician in the Ukrainian SSR Academy of Sciences, director of the Institute of the Economics of Industry of the Ukrainian SSR Academy of Sciences: "The Organizational Factors of Efficiency"]

[Text] The effect from the creation and development of production associations is formed as a result of the integration of the basic service and material productions, and also of progressive changes in the structure, methods, and technology of the management of enterprises. The essence of these processes consists of transformations in the structure of the basic element of social production which make it possible to realize the so-called organizational reserves for increasing production efficiency above all on the basis of its specialization and cooperation.

For a number of years studies have been conducted in the Institute of the Economics of Industry of the Ukrainian SSR Academy of Sciences on ways to increase the efficiency of production associations. Thus, in 1980 a questionnaire study was conducted for 306 production and scientific production associations in the Ukrainian SSR, and in 1982 there was a survey of the associations of Ukrainian SSR light industry and an analysis of the introduction of measures to improve the economic mechanism in Donetsk Oblast. A generalization of these materials makes it possible to isolate the special features of the formation of associations which have exercised an appreciable influence on their efficiency growth rates.

The possibilities for cooperation and specialization in the associations are not always fully utilized because the associations are frequently created within narrow departmental limits.

Kharkov Oblast, for example, contains 12 enterprises of the Ministry of Tractor and Agricultural Machine Building which are subordinate to three all-union industrial associations--"Soyuztraktorprom," "Soyuztraktordvigatel'," and "Soyuztraktorzapchast'." Production associations have been formed within them: the tractor building "Serp i Molot" and "Khar'kovtraktorzapchast'" which contain one or two production units; the remaining enterprises are subordinated to the industrial associations directly. A production association has been created on the basis of the Kharkov Tractor Plant imeni Ordzhonikidze which, in addition to a head enterprise, includes only the Lozovaya Machinery Forging Plant. The

Kharkov Tractor Plant is an advanced and highly organized enterprise which could be used as a basis for the creation of a large production association subordinated directly to the ministry and bypassing the middle echelon of management.

In the formation of a substantial number of the associations the special branch characteristics of enterprises were not taken into consideration. In such branches of industry as the coal branch and in a number of sub-branches of the food industry it is practically impossible to develop specialization and cooperation in the basic production. An effect from an improvement of organizational forms is possible here in the auxiliary and service productions. According to our calculations, 197 associations of this kind, or 25 percent of the total number, have been created in the republic.

The proportion of profile output in total production volume is of great importance for increasing work efficiency. Certain associations contain plants which have no relationship at all to their profile. For example, the Krasnoarmeysk "Elektrodvigatel'" Plant which produces vacuum cleaner motors has been included in the Donetsk "Elektrobytmash" Production Association which is specialized in the production of household refrigerators and washing machines. This measure has deprived the plant of independence, but it has not added any development advantages.

The "Odessapochvomash" Association contains as production units the Zhdanov and Kamenets-Podol'sk Agricultural Machinery Plants which are located at a distance of more than 500 kilometers from their head plant. No work on cooperation was performed here, and during the first four years after their creation production volume decreased by 1.5 percent, and output per worker by 9.8 percent.

A substantial number of associations have been created on the basis of trusts, administrations, and combines which have already made use of their potential organizational reserves. Only the name has changed, and this is unable to influence an increase in production efficiency. The republic has 129 such associations; that is 16 percent of the total number, and they employ 29 percent of the personnel.

There is a negligible organizational effect from the creation of associations on the basis of a single large enterprise, even such large ones as, for example, the "Zhdanovtyazhmash" and "Novokramatorsk Machine Building Plant" Production Associations. An increase in production efficiency in this case is achieved on the basis of reequipping and an improvement of intra-enterprise cost accounting, and the advantages of specialization and cooperation are practically unutilized. The creation of such associations is characteristic for the branches of heavy machine building. The republic has 94 such associations, or 11.5 percent of the total.

The potential effect from the concentration of production is not automatically achieved with the formation of associations, and far from every association has this effect. One can recall V. I. Lenin's statement to the effect that in industry the "law of the superiority of big production is by no means as

absolute and as simple as is sometimes thought; there also it is the equality of 'other conditions' (which by no means always occurs in reality) that ensures the complete applicability of the law." (Vol 4, p 110)

A rise in the level of the working out of development plans for the associations has to play an important role in discovering the possibilities for increasing production efficiency which are objectively contained in this qualitatively new form of the basic element of the economy. Temporary methods recommendations on the planning of the creation and development of production associations in industry were approved by Gosplan USSR and the USSR State Committee for Science and Engineering as early as 1976. Despite this, in 1979 only one-third of the associations surveyed possessed these documents. In addition, 15 percent of them had been formed in accordance with plans which had been developed by specialized organizations. The remaining ones were formed with regard to the technical and economic substantiations which had been worked up by the workers of the enterprises themselves.

An analysis shows that in the associations which have good quality development plans the degree of the use of reserves for increasing production efficiency and labor productivity growth rates is, as a rule, two to three times greater than at associations which do not have planning elaborations. For example, during the past 5-year plan at the Kiev "Elektromash" Association imeni V. I. Lenin production volume increased 2.3 times, and labor productivity increased by 79.8 percent. At the Khmel'nitskiy "Termoplastavtomat" Production Association imeni the 26th CPSU Congress the growth came to 2.4 times and 72.3 percent, respectively.

At the present time two-thirds of the republic's associations already have development plans, but their quality is still not high, and far from full account has been taken in them of the potential reserves for increasing production efficiency. They envisage an increase in production volume in the range of 6-14 percent, and of labor productivity in the range of only 8-12 percent. But the work experience of the best associations testifies to the possibility for increasing these indicators by 50-70 and 20-50 percent, respectively.

The "Melitopol'kholodmash" Production Association can serve as a good example. During the four years after its creation the amount of output sales increased here by 20 percent, the level of profitability by 5.6 percent, labor productivity by 21 percent, and expenditures per ruble of commodity output were decreased by 3 percent.

I believe that the development and approval of new methods recommendations on planning the formation and development of production associations is important. First place in them should be given to the principle of a serious increase in production efficiency, and, particularly, an increase in the growth rates of labor productivity, yield from capital, and profitability of two to three times compared with the average branch indicators.

Measures on the utilization of reserves for increasing the efficiency of production associations should be directed toward a further increase in production

volumes and primarily on the basis of the specialization and cooperation of subdivisions, the concentration of auxiliary operations, and an improvement of management.

The material and financial support for measures on the development of associations should, in our opinion, be placed on the same level as measures for the reconstruction and reequipping of production. This will make it possible to provide in the plans for a first-priority allocation for the above purposes of material resources, equipment, and the necessary capital investments.

The advantages of production associations are not realized automatically. For this reason, the management of their development has to become a very important function both of their managerial apparatus and of the central apparatus of the ministries. Practice testifies to an underestimation in a number of ministries and associations both of the difficulty of the work connected with development and of the advantages of the coordination by a single specialized subdivision of all of the work necessary for this. The proportion of associations in which provision has been made for the creation of such services, and in various ministries ranges from 0 to 20 percent. Thus, in the industrial associations of the Ukrainian SSR Ministry of the Coal Industry improvement divisions were created at the end of 1981 and the beginning of 1982, while in the Ukrainian SSR Ministry of the Construction Materials Industry and the Ministry of the Timber and Woodworking Industry there is no such service at all. I believe that specialized services for the improvement of management at all levels justify themselves. It would also be useful to expand the rights of the general directors of large associations with regard to the organization of management, granting them the right to decide the question of the independence of production units.

In view of the goal of creating associations as unified production and economic complexes, it would seem necessary to facilitate the possibilities for intra-ministry, inter-branch, and intra-association cooperation on the basis of the maneuvering of material resources, production capacities, and output, including by means of granting an association the right to transfer the execution of a delivery contract from one of its plants to another. These issues must, it is clear, find a reflection in the refined general plans for the management of the branches of industry.

The results of an analysis of the work of scientific production and production associations which has been conducted by our institute and by a number of other organizations were examined by the Ukrainian SSR Council of Ministers. Concrete measures were mapped out on the elimination of shortcomings and on strengthening production cooperation and specialization. It is important to see to it that the realization of the development plans be mandatorily included in the 5-year and annual work plans of the associations.

ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

BRANCH SYSTEMS OF MANAGEMENT DISCUSSED

Kiev PRAVDA UKRAINY in Russian 12 May 83 p 2

[Article by B. Shcherbitskiy, director of the Ukrainian Branch of the Scientific Research Institute of Planning and Normatives at Gosplan USSR, doctor of economic sciences, and V. Kipot', division chief, candidate of economic sciences: "Branch Systems"]

[Text] The realization of the strategic tasks for the development of our economy which have been posed by the party at the present stage of dynamic economic construction, the realization of large economic and social programs, and an acceleration of scientific and technological progress are making it necessary to solve many of the pressing problems of improving the entire economic mechanism, one of which is the problem of a further improvement of branch management.

After the recreation of the industrial ministries an important stage in the improvement of branch management was the major reorganization of branch managerial systems carried out in the 1970s on the basis of the creation of fundamentally new organizational forms--industrial associations in the middle echelon, and various types of production associations in the basic echelon of industrial production, the redistribution of functions and rights among levels and elements, and a rationalization of the managerial apparatus. The branches which determine technological progress received an accelerated development. During past years the Ukraine's ministries have achieved a further increase in industrial production, and an expansion of the assortment and improvement of the quality of consumer goods.

However, as was noted at the 26th Congress of the Communist Party of the Ukraine, "some of the associations and enterprises did not meet their established assignments. Labor productivity growth rates in industry were lower than had been planned. . . ." There has been lagging for a number of indicators during the last two years of the 11th Five-Year Plan also. One of the reasons for the difficulties in the work of the ministries as agencies of management was the fact that the reorganization of branch managerial systems in the 1970s was carried out very rapidly, and individual regulations and measures which had been mapped out by the branch management plans were not fully backed up by the appropriate technical and economic substantiations and by the methods and organizational base for their performance.

Many of the decisions on the reorganization of production structures by the ministries were taken without a sufficiently deep planning work-up. Miscalculations in determining the sizes of production associations led in a number of cases to the creation of complexes which were irrational in their size and structure. Not all of the production associations were formed in such a way that their functioning and development as unified production and economic complexes was ensured. There were individual shortcomings in the distribution of production and economic functions among the middle and basic elements of management, and within the production associations. The curtailment of elements in certain branches created difficulties for the leadership of the sub-branches of industrial production. It is not accidental that the necessity has arisen in recent years for breaking up the production associations in the coal industry into smaller units, and forming managerial agencies in the middle echelon of ferrous metallurgy for the direction of the specialized productions of this branch.

The 26th Party Congress mapped out a "refinement of the general plans for the management of the branches of industry which have been worked out in industry in application to the tasks of the 11th Five-Year Plan." The basic element of industrial production which determines the entire complex of both intra-branch and inter-branch technical production and economic organizational relations is the chief component of each ministerial system of management. The reorganization in the second half of the 1970s of the branch management schemes was accompanied by the active formation in the basic element of a more progressive form of production organization--production associations which now account in the republic for more than half of the industrial production, and in individual branches even for 90-95 percent. This measure, as is known, did much to promote a curtailment of elements and the centralization of the function of management, and the accomplishment of the tasks of developing production and increasing its efficiency. However, as the work experience of many associations shows, their creation did not always respond to the tasks of deepening production specialization and cooperation and of a rationalization of managerial systems. As a result of a narrowly departmental approach to their formation and of frequently invalid decisions connected with the construction of organizational and production structures, a number of associations did not achieve the expected results and did not make full use of the advantages of this progressive form of production organization.

What were the basic miscalculations which were made in the creation of the associations?

The lack of the necessary method space for the selection of optimal sizes for the associations with regard to the specific nature of each production, and the poor technical and economic substantiation of their organizational structure has resulted in the fact that even within a single branch the sizes of the associations, as a rule, differ greatly from one another. In the republic's coal industry, for example, at the initial stage of their creation the coal mining associations were formed without the necessary regard for territorial factors and for the long years of experience of the trust system with annual coal mining volumes of from 6.3 to 23.3 million tons, and with the gross output volume of from 70 to 498 million rubles. The difficulty of managing the mines

in the large associations of the Donbass had a negative effect upon the organization of coal mining and has made it necessary in recent years to break them up into smaller units. Such excessive reorganizations, of course, had a negative effect upon the work of the branch.

Many small associations have been created in the republic's industry within which it is difficult, and sometimes impossible, to carry out effective measures to deepen production specialization and combination and the centralization of auxiliary services and shops. Although in recent years the number of small associations in the Ukraine's industry has decreased to 14 percent of the total, nevertheless it remains high. This kind of situation also points to the fact that the problem of the optimal size of associations has not been solved in practically any branch.

One of the chief requirements of the government's decree of 1973 has not been realized in the creation of production associations--the formation of these specialized complexes on the basis of a beneficial association of enterprises regardless of their departmental subordination and branch membership. During the 1970s all of the associations were created by the republic's ministries solely within the framework of their departmental membership.

The production units which have gone into many of the associations have a closed production cycle and retain real independence. In this situation it is impossible to fully realize the system of technical production and organizational transformations which is inherent in unified production and economic complexes. They include, for example, coal mining associations. It is obvious that these associations do not yet fully accord with the requirements for the organic unity of such complexes. Every enterprise within such an association has been compelled and will continue to develop "its own" inefficient and insufficiently specialized auxiliary and service productions, which are nevertheless "reliable" in the organization of the production cycle.

A strengthening of the unity of operating production and economic complexes has been negatively affected by the fact that the construction of new and reconstruction of operating enterprises which are members of associations is performed, as a rule, in accordance with plans designated for enterprises which function autonomously.

In refining branch management systems the republic ministries have to review the dimensions and composition of the individual associations, and determine their optimal size with regard to their work experience, developed relationships, territorial location, and development prospects. It is clear that the development of operating and the creation of new associations has to provide for the judicious inclusion in them of individual enterprises of interconnected branches, regardless of their departmental membership. This kind of transfer of enterprises from ministry to ministry must, of course, be substantiated and determined by the development of the production and organizational structures of each concrete complex, and it must proceed from the effect on the production of final output.

The problem of the selection of an optimal number of elements for their structures has to be classified as a very important problem of the formation of branch management systems. In past years during the process of the realization of inter-branch management schemes in many of the republic's ministries the middle echelon of management was abolished and a two echelon scheme was instituted--"ministry-production association, enterprise." Many years of experience have shown that in ministries which unite an entire complex of specialized sub-branches the management of these sub-branches was made more difficult with the two-echelon scheme.

Let us attempt to examine this problem on the basis of the example of ferrous metallurgy, the leading branch of the republic's heavy industry. The poor technical and economic work-up of the reorganization of the branch's management which was planned in past years and, particularly, the unsubstantiated decrease in the number of elements led to difficulties in the management of both the specialized sub-branches of metallurgical production and individual plants and combines. With the abolition of the middle echelon the Ukrainian SSR Ministry of Ferrous Metallurgy was compelled to take upon itself the functions of the day-to-day management of a large number of big enterprises, combines, and production associations which performed the consistent technological transformation of basic raw materials into final output. The solution of the problems connected with the regulation of intra-branch relations and cooperative deliveries, and of providing enterprises and associations with material resources and raw materials became more difficult.

The production administrations which were created in the central managerial apparatus of the Ukrainian SSR Ministry of Ferrous Metallurgy for metallurgical and coke and chemical, pipe and hardware, and mining enterprises practically carried out only control and day-to-day production functions. The existence of a large number of management objects with a very complex organizational and production structure worsened the accomplishment in the functional administrations of the ministry of individual economic tasks, particularly, of the efficient use of capital investments and material and raw materials resources. The shortcomings of the reorganization of the organizational structure of the management of the branch which was carried out in 1975-1976 had a definite effect upon the reequipping and renewal of metallurgical units and on worsening the work indicators of a number of metallurgical, pipe, hardware, coke and chemical, and mining enterprises. The work experience of the Ukrainian SSR Ministry of Ferrous Metallurgy under the new management scheme disclosed a number of not only positive but also negative aspects and has served as a basis in recent years for the introduction of individual changes into the operating system of the management of the republic's metallurgical industry. The accomplishment of new and more difficult tasks in the development of ferrous metallurgy, of an improvement of the equipment, technology, and organization of the basic and auxiliary productions, of a further deepening of cooperative relations, and also the realization of organizational and economic measures aimed at strengthening the economic mechanism have made it necessary to refine the operating branch management scheme, including the creation in its system of middle echelon agencies, and the redistribution of functions among management

levels. The republic "Ukruda" Industrial Association has been created and contains mining combines and a production association for the underground mining of iron ore, that is, a unified management agency for this very important sub-branch has been formed in the middle echelon. In order to improve the direction of the sub-branches of ferrous metallurgy republic industrial associations of metallurgical plants, pipe, pipe rolling, and pipe casting enterprises, and also hardware production associations and enterprises and others have been formed in the system of the Ukrainian SSR Ministry of Ferrous Metallurgy. Changes have been made in the structure of the ministry's central managerial apparatus.

With the shift to a two-echelon system of management a similar situation developed in the meat and dairy industry in which with the abolition of the middle echelon of management the leadership of its sub-branches became more difficult. The creation in the structure of the ministry's central managerial apparatus of two sub-branch administrations (meat and dairy industry) was the result of the absence of a middle echelon in the branch. These administrations were given the tasks of the future development of the sub-branches. But, in essence, they continue to perform the functions of the middle managerial echelon, and are compelled to constantly decide upon a number of day-to-day questions of the current work of the meat and dairy industry associations, without having the appropriate rights and managerial personnel. The abolition of the middle echelon for the management of specialized sub-branches created difficulties for the coordination of the current production and economic work of the enterprises, the auxiliary production, the servicing of subdivisions within each sub-branch, and the rational redistribution of raw materials resources among the individual production subdivisions.

The accomplishment of the concrete tasks of reequipping within each enterprise and of the day-to-day management of production and of the production of output is now putting forward new demands upon defining the number of elements in branch schemes with regard not only to the specific nature of the work of the sub-branches, but of the solution of inter-branch and territorial problems. The formation of a middle echelon in a number of ministerial management systems is the result of the realization of two fundamental goals of branch management: the satisfaction of the economy's needs for the output of a specialized sub-branch, and the realization of a unified scientific and technical policy in the development of its enterprises with regard not only to branch but, chiefly, to inter-branch interests, since scientific and technological progress is increasingly becoming inter-branch.

Returning to the coal industry, it has to be noted that the problem of the formation of a middle echelon in the managerial system of this branch which could be given the tasks of territorial management and of the planning of the development of the mine fund of the individual regions of the Donbass has become an urgent one.

A refined branch management scheme, in our opinion, must now be based above all on an overall program of scientific and technological progress and a forecast of the development of the branch, on a real evaluation of the developed

system of management, on plans for the development of operating production and economic complexes, and, in a number of ministries, with regard to the functioning of new agro-industrial associations and the assignments of the Food Program.

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ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

GOAL-ORIENTED MANAGEMENT PROGRAMS DEVELOPED AT TASHKENT PLANT

Tashkent *EKONOMIKA I ZHIZN'* in Russian No 4, Apr 83 pp 6-12

/Article by M. Brusilovskiy, deputy general director of the Tashkent Aviation Production Association imeni V. P. Chkalov, manager of the development of the overall system for increase in production efficiency, B. Morozov, chief of the division of scientific organization of labor in the management of increase in production efficiency, and M. Lopatnikov, deputy chief of the division of scientific organization of labor in the management of increase in production efficiency: "Goal-Oriented Management Programs"

/Text/ Responding to the decisions of the November (1982) Plenum of the CPSU Central Committee with action, Tashkent aircraft builders strive to work with even greater efficiency. Having completed the year 1982 in a shock manner, they created the conditions necessary for a successful start in the third year of the five-year plan.

The 1982 plan for the delivery of basic articles was fulfilled ahead of schedule. Output worth millions of rubles was sold and consumer goods worth 256,000 rubles were produced in excess of the plan. By 1981 the growth of production volumes comprised 9.4 percent and labor productivity grew by 6.9 percent, which exceeded the assignments of the five-year plan. Annual assignments for the basic indicators of capital construction, reconstruction and retooling were fulfilled.

The increase in production efficiency made it possible to raise the average wages of workers. Allocations for the construction of housing and projects for cultural and domestic purposes and for the expansion of health care institutions are growing steadily. Constant work on the development of subsidiary farms is being done.

For achievements in the all-Union socialist competition in commemoration of the 60th anniversary of the formation of the USSR the association's collective was handed the challenge Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Central Committee of the Komsomol with an entry on the Board of Honor of the Exhibition of USSR National Economic Achievements.

These achievements and the possibilities for the activation of existing potentials are ensured in large measure by a systematic purposeful activity for an improvement in the economics and organization of production and for a rise in the quality of output and in the level of the collective's social development.

At the same time, the drawing up and introduction of the organizational and economic documents and standards of the enterprise and the elaboration and realization, beginning from the 8th Five-Year Plan, of plans for the social and economic development of the collective occupy an important place.

More than 400 methodological and organizational documents on the economics and organization of production are now in effect in the association. All subdivisions have statutes concerning their functions, official instructions for workers and statutes concerning cost accounting, planning and the provision of incentives. The statutes and standards regulate the organization and provision of an efficient functioning of the system of planned preventive maintenance of work places, brigade forms of organization of and provision of incentives for labor and so forth.

The overall system for the management of the quality of output (SOVKURPON) was introduced in a full volume in the association in 1978 and it functions efficiently. The attainment of a high quality of output and labor is regulated in more than 300 enterprise standards for this system.

The efficiency of introduction of the overall system for quality management does not evoke any doubt at present. However, the quality of output is only one of the components of efficiency. Preference for this component can lead to the oblivion of other indicators, for example, such as labor intensiveness of the manufacture of products and a rational utilization of material, labor and financial resources. After all the 26th party congress, along with the task of a sharp improvement in the quality of output, stressed the need for a "progressive development of the national economy, acceleration of scientific and technical progress and of the transfer of the economy to an intensive path of development, a more rational utilization of the country's production potential and the maximum possible saving of all types of resources..."

A detailed critical analysis of the production and economic activity of the association demonstrated the need for the development and extensive utilization of forms and methods of an overall effect on all factors affecting an increase in production efficiency, not only the quality of output.

Therefore, in April 1980 we turned to the development and gradual introduction of an overall system for increase in production efficiency [KS PEP TAP01Ch], whose draft is the working document for the implementation of the decree of the CPSU Central Committee and the USSR Council of Ministers on improvement in the economic mechanism.

The accumulated experience in the development and extensive introduction of the SOVKURPON overall system for the management of the quality of output made it possible to "fit" its main principles to all the components of efficiency,

to work out our own principles, system of standardization and method of development of an overall plan of measures for increase in production efficiency and to improve the management of the association's economic activity.

The experience of the country's advanced enterprises points to the effectiveness and efficiency of functioning of such overall systems.

The overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov, being a linear-functional system, makes it possible to implement in a full volume the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Effect of the Economic Mechanism on Increasing Production Efficiency and Work Quality" and does not abolish existing traditional forms of management, but improves, alters and supplements them on the basis of the principles of program goal-oriented methods.

This is especially important now, when the extensive introduction of brigade forms of organization of and provision of incentives for labor (more than 70 percent of all the workers have already been united into brigades) requires the reconstruction of the economic mechanism and of organizational-party and ideological work to ensure high results of brigade activity.

In this respect the experience of the collective of the Kaluga Turbine Plant Association, which developed an "overall system for enterprise management on the basis of the brigade form of organization of and provision of incentives for labor," proved to be extremely useful.

Embarking on the development of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov, first of all, we formulated seven main principles on which the system is based.

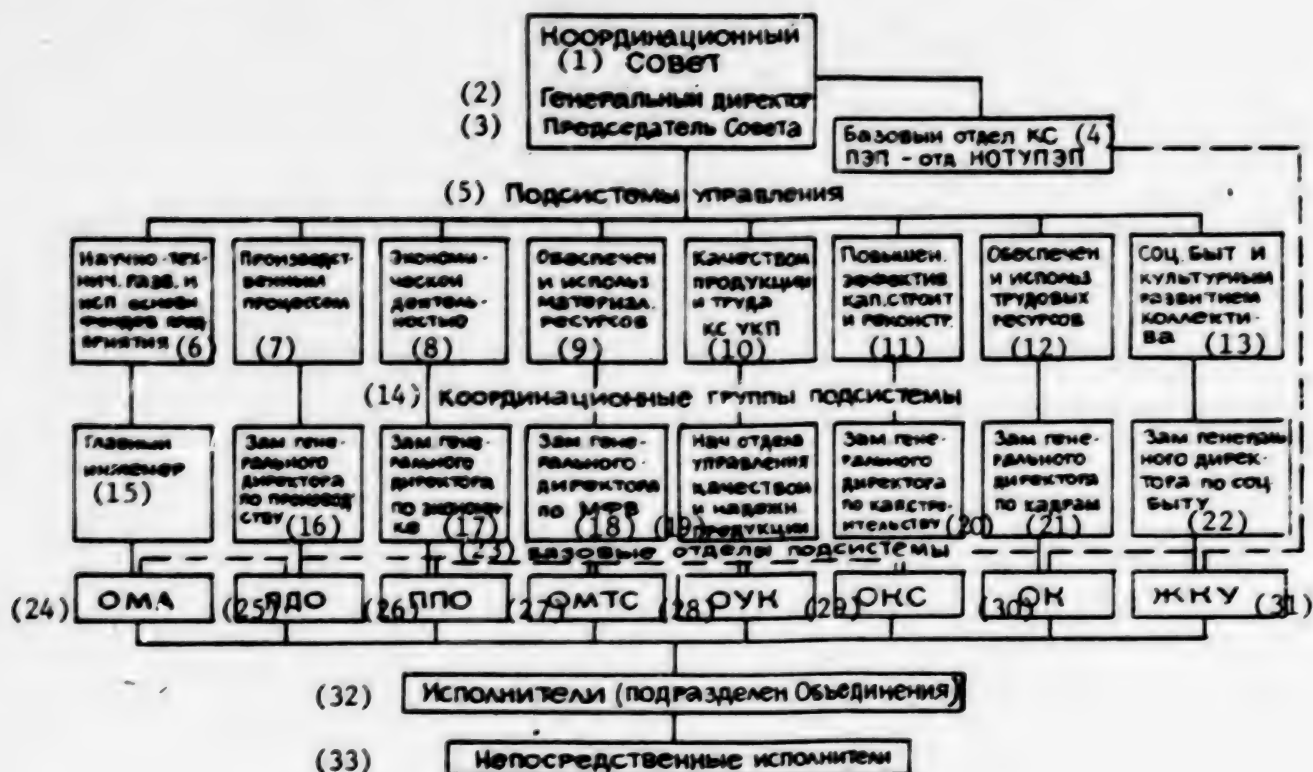
What principles are they?

First, the party approach to the solution of economic problems. It lies in a strict observance of the Leninist principles of socialist enterprise management and in the fulfillment of the decisions of the congresses of the CPSU and of the Communist Party of Uzbekistan and of the plenums of the CPSU Central Committee and of the Central Committee of the Communist Party of Uzbekistan and of the decrees of superior organs concerning problems of increasing production efficiency and work quality. The implementation of this principle is regulated by enterprise standards, by the system of organizational-party and ideological support and by the overall plan of measures for increase in production efficiency.

Second, overall nature. All the directions in the increase in production efficiency and in the social development of the collective are subdivided into eight subsystems. The organizational structure of the overall system for increase of production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov was developed and approved on the basis of this principle (figure 1). The attainment of the main goal of every subsystem is examined in it in unity with the overall goal-oriented program.

Fig. 1

ORGANIZATIONAL STRUCTURE OF THE OVERALL SYSTEM FOR INCREASE
IN PRODUCTION EFFICIENCY OF THE ASSOCIATION



Key:

- | | |
|---|---|
| 1. Coordinating council | 9. Provision and utilization of material resources |
| 2. General director | 10. Quality of output and labor--overall system for the management of the quality of output |
| 3. Chairman of the council | 11. Increase in the efficiency of capital construction and reconstruction |
| 4. Base division of the overall system for increase in production efficiency--division of scientific organization of labor in the management of increase in production efficiency | 12. Provision and utilization of labor resources |
| 5. Subsystems of management | 13. Social-domestic and cultural development of the collective |
| 6. Scientific and technical development and utilization of the fixed capital of the enterprise | 14. Coordinating groups of the subsystem |
| 7. Production process | 15. Chief engineer |
| 8. Economic activity | |

- | | |
|--|---|
| 16. Deputy general director for production | 23. Base divisions of the subsystem |
| 17. Deputy general director for economy | 24. Mechanization and automation division |
| 18. Deputy general director for MFV | 25. Production control division |
| 19. Chief of the division of management of the quality and reliability of output | 26. Production planning division |
| 20. Deputy general director for capital construction | 27. Material and technical supply division |
| 21. Deputy general director for personnel | 28. Quality management division |
| 22. Deputy general director for social conditions | 29. Capital construction division |
| | 30. Personnel division |
| | 31. Housing and municipal administration |
| | 32. Executors (subdivisions of the association) |
| | 33. Direct executors |

Third, the program-goal-oriented method of management of increase in social and economic production efficiency. It is realized through goal-oriented programs, which are determined for every subsystem on the basis of an analysis of the functions of subdivisions directed toward the attainment of the main goal of the subsystem and of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov as a whole.

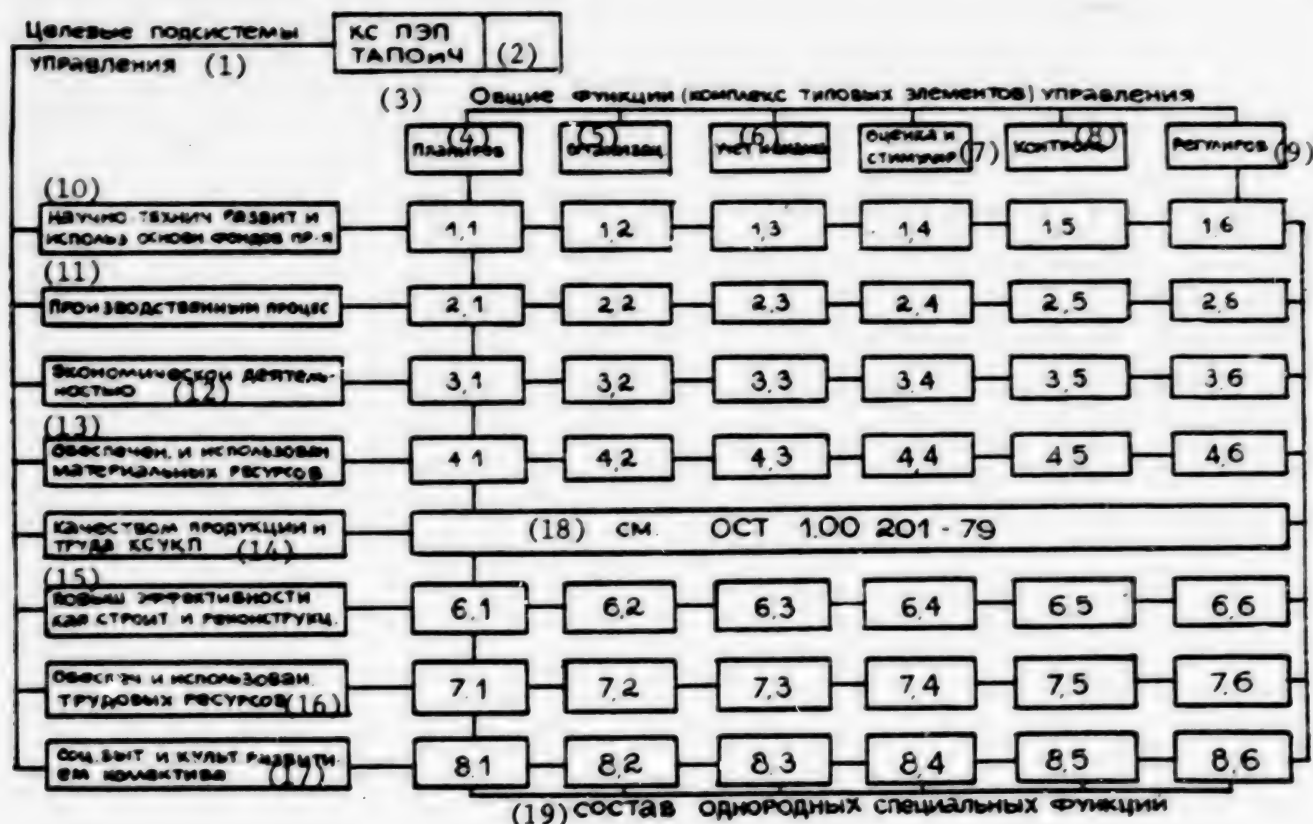
Fourth, general functions (set of standard elements) of management. This guarantees the attainment of the goal of management. An efficient regulation of this principle is based on the developed and approved basic matrix diagram of the formation of goal-oriented programs of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov (figure 2).

Fifth, the normative method of evaluation of results in all the directions of production and economic activity. Usually, when it is summed up at enterprises and at their subdivisions, basically, the efficiency of work is determined by two criteria: the degree of fulfillment of the established plans and the rates of growth of indicators in relation to the level attained during the past period. Under these conditions the stepped-up nature of plans is not always taken into consideration. As a result, those that have substantial reserves and do not rush to realize them are in an advantageous position as compared with the collective that works more intensively.

For the purpose of eliminating such a discrepancy, we are developing a system of evaluation of the results of production activity of labor collectives on the basis of standards establishing the maximally attainable result under given specific conditions for all major technical and economic indicators, that is, rational utilization of capacities and material and labor resources, technical level of production, quality of output and social development of the collective.

Fig. 2

DIAGRAM OF FORMATION OF GOAL-ORIENTED PROGRAMS AND OF THEIR SUPPORT
THROUGH GENERAL FUNCTIONS (SET OF STANDARD ELEMENTS) OF MANAGEMENT



Key:

- | | |
|---|---|
| 1. Goal-oriented subsystems of management of | 9. Regulation |
| 2. Overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov | 10. Scientific and technical development and utilization of the fixed capital of the enterprise |
| 3. General functions (set of standard elements) of management | 11. Production process |
| 4. Planning | 12. Economic activity |
| 5. Organization | 13. Provision and utilization of material resources |
| 6. Recording and analysis | 14. Quality of output and labor--overall system for the management of the quality of output |
| 7. Evaluation and provision of incentives | 15. Increase in efficiency of capital construction and reconstruction |
| 8. Control | |

- | | |
|--|--|
| 16. Provision and utilization of labor resources | 18. See the sectorial standard 1.00 201-79 |
| 17. Social-domestic and cultural development of the collective | 19. Composition of uniform special functions |

The availability of such norms makes it possible to evaluate the services of collectives and workers according to the level of a realistically comparable contribution. The closer the achievement to the standard, the more significant the contribution.

Sixth, the principle of provision of incentives for the results of labor during the award of bonuses and review of the results of socialist competition based on the combination of two criteria: The fulfillment of planned assignments gives the right to incentives and the level of achievement as compared with the standard determines the amount of incentives.

Seventh, problems concerning the social development of the collective at the level of solution of questions relating to production and economic activity.

The mechanism of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov consists of three key elements: a standardization system, a unified overall plan for increase in production efficiency of the association, of a subdivision and of a brigade and a system of provision of material and moral incentives.

These directions regulate an efficient fulfillment of all the seven principles of the overall system for increase in production efficiency.

Enterprise standards are the organizational-methodological and legal basis for the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov. They determine the mechanism of management of the process of increase in production efficiency and work quality and provide for the collection, processing and analysis of the appropriate information and on its basis for the development and adoption of decisions for the attainment of higher end results.

Enterprise standards for the overall system of increase in production efficiency are subdivided into main, base, general and special. The main enterprise standard characterizes the overall system for increase in production efficiency as a whole. Base standards are developed for every subsystem and are the main ones in it. General standards regulate the information support of the overall system for increase in production efficiency, main principles of an overall analysis of production and economic activity and the procedure of development, coordination, approval and introduction of enterprise standards, that is, problems of a general system nature. Special enterprise standards organize and regulate the fulfillment of goal-oriented programs of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov.

Enterprise standards for the overall system for increase in production efficiency are developed on the basis of "standardization plans for ensuring the functioning of the overall system for increase in production efficiency" approved by the association's general director. These plans determine the composition and periods of development of standards for all subsystems, as well as developers of enterprise standards.

The experience in the development and introduction of enterprise standards and the system of measures ensuring their strict fulfillment make it possible to draw a conclusion on the urgent need for the regulation of managerial activity. How to do this? How to ensure confidence that the set goal will be attained?

The science of management has long determined the general functions (standard elements) of management, whose efficient fulfillment is a guarantee of success. They are planning (including forecasting), organization, recording and analysis, evaluation and provision of incentives, control and regulation.

The following must be described in enterprise standards through general functions: goals--what result is to be obtained;

tasks--by means of what measures (actions) a goal is attained (what must be done);

structure--who participates in actions concerning the accomplishment of tasks;

list, order and periods of stages in the performance of operations, methods of fulfillment and requirements for the results of fulfillment of operations as a whole and at every stage;

requirements for the composition and skill of executors--names of subdivisions, services and officials responsible for the fulfillment of operations, procedure of interaction of executors and procedure of transfer of work results to the next stage;

requirements for the information necessary for the performance of operations and for the composition, number and quality of the technical facilities needed for this.

Such a method of development of standards ensures, first, an efficient regulation of management of the envisaged goal-oriented program; second, a significant reduction (by one-half or one-fourth) in the number of standards with a significant gain in the convenience of their use.

Let us explain the last thought: During the development and introduction of the overall system for the management of the quality of output, when it was the only operating system in the association, about 300 enterprise standards were developed and introduced. The overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov has eight subsystems and the overall system for the management of the quality of output is one of them. If we had followed the beaten path, we would have had to develop at least more than 1,500 standards. Every standard must be issued with a separate cover, supplements and correlations. For each standard an order for its approval and introduction is issued. At the same time, it is necessary to fill in a number of required forms of recording and reporting and to control this work.

Furthermore, for every standard it is necessary to ensure the author's control over its observance, for which again schedules are worked out, forms of reporting are filled in and measures for the elimination of disclosed shortcomings

are developed. It must also be stressed that the development of standards according to levels of management (hierarchical principle) disrupts the goal-oriented program and makes the standard inconvenient for operation. Owing to the abundance of references to various documents, it is necessary to use four or five standards at once and repetitions of provisions common for the entire goal-oriented program are inevitable in them.

Nor is there confidence in the fact that the management of a goal-oriented program is fully regulated, because the fulfillment of the set of standard elements (general functions) of management is not followed.

All this points to the correctness of the method of development of enterprise standards selected in the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov.

As a rule, the standards of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov (apart from main, base and some general standards) regulate the implementation of the goal-oriented program of management for all standard elements, as well as the fulfillment of individual general functions of management of other goal-oriented programs.

This ensures the direction of managerial activity toward end results--an increase in social and economic production efficiency and an interconnected purposeful operation of many services, subdivisions and executors.

The selection of the stages of development and introduction of enterprise standards according to their number and periods is very important and crucial. In order that the system may begin to function, it is necessary to develop and introduce a small number of the following basic enterprise standards:

main principles of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov;

base standards of a subsystem;

the standard "planning, reporting and overall evaluation of the efficiency and quality of operation of the subdivisions of subsystems;"

some standards determining the method of development, planning and reporting according to norms and evaluation indicators of efficiency;

the standard "structure and organization of the development and execution of the plan of measures for increase in production efficiency;"

a set of standards and statutes for the provision of material and moral incentives.

This is the first stage. What is next? What should be standardized and during what periods?

For this purpose in accordance with the matrix scheme of formation of goal-oriented programs determined in the main standard (see figure 2) a matrix diagram for the provision of goal-oriented programs with enterprise standards was developed.

We have already stated that more than 400 statutes and over 300 enterprise standards are in effect in the association. All of them describe with a certain degree of completeness of regulation many special functions of management. To determine the necessary order in the development of enterprise standards for the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov, it is necessary to establish what has not yet been described at all by statutes or standards.

For this purpose a profound analysis of all the statutes and standards in effect and the filling in of them in the working matrix diagram for the provision of the goal-oriented program of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov with enterprise standards according to general functions of management were conducted.

Thus, the priority list of standards and the basis for the development of technical assignments for them according to general functions of management are disclosed. At the same time, the preparation of the next stage is made, that is, the processing of the standards and statutes in effect into standards of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov with their combination and consolidation in accordance with the adopted method of regulation of the fulfillment of goal-oriented programs through general functions (standard elements) of management.

During the development of the overall system for increase in production efficiency its organizational-methodological principles (structure, organs and means of management and enterprise standards) ensuring an operational management of the activity of the enterprise collective for increase in production efficiency and work quality, as well as special forms and methods of realization of the system's key functions, are formed.

In order to ensure an interconnection of the system's various elements and of the forms of organization of production, labor and management and the fullest utilization of advanced experience, an overall plan of measures for increase in production efficiency is being developed.

It is characteristic that the overall plan eliminates numerous plans, which duplicate each other and often are contradictory (for personnel training, new equipment, organizational and technical measures, quality, the collective's social development and a number of others), makes it possible to scientifically substantiate the selection of the most efficient directions in the technical improvement in production and coordinates the development of enterprise standards.

The overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov developed in the association envisages the development of the association's overall plan of measures for increase in production efficiency and of overall plans of measures for increase in production efficiency for subdivisions and production brigades.

The association's overall plan of measures for increase in production efficiency is the enterprise's unified document and one of the system's basic elements. It determines the content of work of the entire collective on increase in production efficiency, basic measures, methods of uncovering and activating production potentials, facilities ensuring the functioning of the overall system for increase in production efficiency and measures for its organizational and ideological support.

The overall plan of measures for increase in production efficiency is developed in accordance with the composition and content of goal-oriented programs of the subsystems of the overall system for increase in production efficiency and on the basis of the approved indicators of the technical, industrial and financial plan, enterprise standards and other normative documents.

The overall plan determines the participation of the entire labor collective in enterprise management, in the search for and utilization of production potentials, in social development and in the strengthening of labor discipline.

The requirements for the procedure and method of development, as well as the responsibility for the content, formulation and execution, of the overall plan of measures for increase in production efficiency are determined by the standard "content and organization of the development and execution of the enterprise's overall plan of measures for increase in production efficiency."

Overall plans of measures for increase in production efficiency of production brigades (in labor passports), shops, divisions and the association as a whole have been developed in the association since 1982. The method and procedure of their development are determined by the appropriate enterprise standard, whose supplements are the models of the overall plan of measures for increase in production efficiency of the association, subdivisions and production brigades. These models determine the sections, subsections and directions of measures in strict accordance with the approved goal-oriented programs of the subsystems of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov. In this manner the program-goal-oriented method of planning is regulated at the stage of development of the overall plan of measures for increase in production efficiency and of management, at the stage of its realization.

The party set the task of unifying together the interests of the worker with the interests of the enterprise and the interests of the enterprise with the interests of the state. Such an important element of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov as the system of evaluation of the efficiency of work and its material incentives serves the realization of this directive. An overall evaluation of the activity of the association's subdivisions and of individual executors makes it possible to determine the level of fulfillment of the functions entrusted to them and of the goals and tasks set for them and is directed toward the provision of incentives for the search for potentials and for ways of increasing social and economic production efficiency and of strengthening performance discipline.

An overall evaluation of the efficiency and quality of work of subdivisions is determined by the coefficient of efficiency and quality of work ($K_{\text{ЭК}}$). The amount of the bonus credited to a subdivision and its place in the socialist competition for the efficiency and quality of work depend on the obtained numerical value of $K_{\text{ЭК}}$.

$$K_{\text{ЭК}} = \gamma(B_K + B_{\text{Э}})$$

This formula is the mathematical expression of the sixth principle of the overall system of increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov. Let us recall it. The principle of provision of incentives for the results of labor during the award of bonuses and review of the results of socialist competition based on a combination of two criteria—the fulfillment of planned assignments gives the right to incentives and the level of achievement as compared with the norms determines the amount of incentives—is applied in the system.

In the formula the indicator γ expresses the first criterion and can be equal to 0 or 1.

$(B_K + B_{\text{Э}})$ --the sum of points for the evaluation indicators of work quality (B_K) and production efficiency ($B_{\text{Э}}$) attained as compared with the norms--expresses the second criterion.

Depending on the attained coefficient and quality of work the collectives of subdivisions will be provided with incentives according to the enterprise standard "provision of material and moral incentives for the efficiency and quality of work of subdivisions and executors."

One cannot say that the process of development and introduction of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov is proceeding smoothly. As in the case of the introduction of the brigade form of labor organization mental inertia, primarily among managers of all levels, had to be overcome. Therefore, we attach tremendous importance to organizational and ideological support for the development and efficient introduction of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov.

The structure of the party organization is being reorganized in accordance with the structure of the overall system for increase in production efficiency. Subjects on the overall system for increase in production efficiency were introduced into the program of the system of political education and economic training and of permanent courses for foremen, brigade leaders, managers of shop services and specialists. A series of lectures were given for economic managers and party organizers of subdivisions.

Materials devoted to the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov are systematically published in the large-circulation newspaper UDARNIK and in the transmissions of the Chkalovets radio studio under the heading "We Are Improving the Economic Mechanism." A fitting place in the subjects of lectures of

the plant Znaniye Society is assigned to the overall system. Problems concerning the developments and efficient introduction of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov are examined at the meetings of the party and economic aktiv and at the sessions of the bureau of the party committee.

Summing up what has been stated, it can be concluded that the organizational essence of the system is reduced to a strict regulation and ordering of the activity of collectives of subdivisions and individual workers through enterprise standards, unified overall plans of measures for increase in the efficiency of production and of the provision of moral and material incentives and means of control.

In fact, the establishment of this system represents the formation of a unified multigoal-oriented overall program for the fullest utilization of resources and on this basis for an increase in the volume of output of high-quality products necessary for the national economy with minimum production and operating costs. In contrast to traditional enterprise management systems this system is to ensure not only a successful fulfillment of the planned assignments established "from above," but also the realization of additional production reserves and a continuous improvement in the quality of work at all the levels of management and in all the subdivisions and services of the enterprise.

The introduction of the overall system for increase in production efficiency will make it possible to successfully realize in the association all the measures of the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Work Quality" and the directives and recommendations of Comrade Yu. V. Andropov, general secretary of the CPSU Central Committee, at the November (1982) Plenum of the CPSU Central Committee and at the meeting with Moscow machine tool builders and on this basis to increase the contribution of the workers of the Tashkent Aviation Production Association imeni V. P. Chkalov to the fulfillment of the stepped-up assignments of the 11th Five-Year Plan and to establish a firm foundation for highly efficient and quality work for subsequent years.

The experience in the development and stage-by-stage introduction of the overall system for increase in production efficiency of the Tashkent Aviation Production Association imeni V. P. Chkalov accumulated by us leads to the conclusion that it can be useful for an extensive introduction at the republic's enterprises and, in particular, at the sectors of the agroindustrial complex.

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ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

BALANCED USE OF ADMINISTRATIVE, ECONOMIC MANAGEMENT LEVERS IN AGRICULTURE NEEDED

Moscow PLANOVVOYE KHOZYAYSTVO in Russian No 7, Jul 83 pp 92-98

[Article by N. Smetanin, deputy department head at USSR Gosplan: "Economic and Administrative Levers in Planned Management"]

[Text] Efficient functioning of the socialist economy requires a rational combination of plan-based, directive establishment of assignments for economic development with broad use of economic and administrative-legal levers for influencing the activities of enterprises, associations, and local Soviet and administrative organs. Among these levers are prices for the means of production and the output produced, the financial and credit mechanisms, material stimulation of collectives and individual working people, the system of contracts and other enforceable enactments which regulate the mutual relations of partners, orders from higher-ranking organs, and their monitoring of progress in fulfillment of the plan. Together with planning these methods of influence constitute the economic mechanism.

The leading element of the mechanism is planning. Taking into account the socio-economic challenges laid down by the Communist Party and the government, it determines the goals of economic development which must be attained in the planning period, the proportions of development of the different elements of production, and the distribution of material, labor, and monetary resources related to this. The other levers and stimuli, whose very content and degree of use depend largely on the principles and methods of planning, are expected to exercise an influence on the interests of economic organs, production collectives, and individual working people that insures that their efforts are directed to attaining the goals established in the plan.

The different economic and administrative-legal levers and stimuli play a subordinate role relative to the plan. They have, however, a fairly substantial influence on work indicators. They can not only accelerate attainment of goals established in the plan, but also retard their realization. To confirm this let us take an example from the 10th Five-Year Plan.

During the years after the March 1965 Plenum of the CPSU Central Committee we worked to bring the levels of pay of persons employed in agriculture and in other sectors of the economy closer together. In this period the growth rate of wages

exceeded growth in labor productivity, and this was an essential, economically justified step. But today, when the differences in levels of pay in sectors of the economy have largely been evened out, it has become necessary to take a more rigorous approach to the situation and see that wages in agriculture rise in conformity with growth in productivity. This was envisioned in the plan for the 10th Five-Year Plan. But the planning calculations were not backed up by economic and other measures. As a result, wages rose faster than labor productivity at the farms in 1976-1980. According to the plan calculations, production of output per average working person compared to the average annual level of the 9th Five-Year Plan was to rise more than wages; in reality, however, wages rose while the plan for labor productivity was not fulfilled. In other words, for each percentage point of growth in labor productivity wages rise more than one percent.

A failure to observe the proportions established in the plan between growth in labor productivity and in wages also occurs in other sectors of the economy. In industry in 1981, for example, the plan for growth in labor productivity was not fulfilled but average monthly wages rose 2.4 percent compared to 1980 instead of the 2.2 percent envisioned in the plan. Growth in wages per percentage point of growth in labor productivity was 0.83 percent instead of the planned 0.61 percent.

In our opinion, it would be wise throughout the economy to envision the use of severe penalties where, by the fault of the enterprise, the ratio established in the plan between growth in labor productivity and wages is not observed.

The problem is that the plan, the central element of economic management, cannot be an all-embracing means of regulating the activities of labor collectives. Most of its indicators are calculated. The indicators that are ratified cover only the main lines of national economic development, while resolving the rest of the problems falls to local organs and to the actual performers of the work. If the interests of enterprise and organization collectives coincide with the interests of the whole society as reflected in the ratified plan indicators, then the collectives will subordinate all their activities to performance of the established assignments. But if there is no such coincidence, economic levers must be supplemented with administrative-legal ones to achieve the goals established in the plan.

The great effectiveness of combining centralized planning with measures of administrative influence is well known. It was used extensively in our country in the years of socialist reconstruction, during the Great Patriotic War and post-war rebuilding, and in subsequent periods.

Since the second half of the 1960's economic science and practice have begun focusing attention on the use of economic levers of management. An economic reform was carried out in the country which resulted in a sharp rise in the importance of prices and profit, a change in the role of budget and other sources of financing for production, a marked increase in the role of bank credit, and broader use of economic stimulation for development of production and raising labor productivity and quality. At the same time, especially in the first years of the economic reform, the question was posed of replacing administrative levers

with economic ones and continuing use of the former was looked upon as inertia in the thinking and actions of economic managers and in management methods. Actual experience showed that this was an incorrect formulation of the matter.

The intensified role of economic levers and stimuli that is characteristic of the current phase does not preclude fairly broad use of administrative-legal methods of influence aimed at successful performance of plan assignments. In this situation plan and administrative levers will insure centralization of production management and economic and legal (contract) levers will support the development of decision-making initiative on the part of enterprises, associations, and lower-ranking management organs.

Price formation is one of the main aspects of planned management of agriculture. The system of prices for the output of crop farming and animal husbandry and for the industrially manufactured means of production delivered to agriculture is the basis of all the cost indicators used in the economic mechanism. Prices are so important because they perform many diverse functions.

The principal function of the price is the reproduction function. Prices for agricultural output must insure not only reimbursement of production expenditures, but also the profit necessary to expand production and to provide labor incentive for kolkhoz members and sovkhoz personnel. Moreover, the amount of profit must be sufficient so that all normally operating enterprises, with the one exception of those working under especially unfavorable natural and economic conditions, are able to secure a large part of their growth in fixed and working capital using their own means and, where necessary, borrowed means that must be repaid at set times. This approach was acknowledged as correct in the decision made at the May 1982 Plenum of the CPSU Central Committee to raise prices for agricultural output being purchased by the state.

Because of the considerable differences in natural and economic conditions under which agricultural production is carried on, kolkhozes and sovkhozes differ significantly in expenditures to produce a unit of output. Therefore, to insure cost accounting [khozraschet] conditions of production for a majority of the enterprises through prices for agricultural output alone would mean to establish them at the level of socially necessary expenditures determined by farms located in conditions that are significantly below average. This would lead to a rise in state purchase prices that would inevitably necessitate a review of the price mechanism in the entire national economy, including retail prices. The decisions of the May 1982 Plenum of the CPSU Central Committee establish an effective solution to this problem by directing a significant part of the capital earmarked for bolstering the economy of the kolkhozes and sovkhozes to establishing supplements to state purchase prices for farms that are in worse natural and economic conditions. Thus a lever was found that insures the possibility of special-purpose use of capital (to bolster the economies of lagging farms) like special-purpose budget financing and ties the allocation of this capital closely to production results. The cost accounting interest of enterprise collectives is heightened on this basis, which does not always happen with budget financing.

Another function of prices is redistribution of newly created value among sectors, economic regions, and enterprises in conformity with the interests of development of socialist production. Under the particular historical conditions that developed in our country, prices for agricultural output were for a long time used as a means of redistributing the income created in agriculture for the benefit of industry, construction, transportation, and other economic sectors.

In the mid-1970's agriculture's shares in the receipts part of national income and in its expenditure part, considering the sector's participation in financing national measures, evened out. As a result, redistribution of the income created in agriculture today is carried out within the sector, among enterprises with different specializations and among regions.

The stimulating function of prices is important, especially for deepening production specialization and concentration and raising the quality of output. Prices differentiated by zones of the country are established for most types of crop farming and animal husbandry output in view of our great diversity of natural and economic conditions. At the same time, the price differentiation system, while envisioning reimbursement of the objective cost levels which differ by region, must insure higher profitability for the enterprises which are located in the best conditions for producing a given type of output.

From this point of view, excessive price differentiation designed to reimburse all expenditures, including enveloping costs, does not promote, in our opinion, deeper zonal specialization and this kind of differentiation as practiced in a number of regions of the country in response to current demands is not economically promising. As the economy of the kolkhozes and sovkhozes grows stronger, agricultural production becomes more stable, and the mechanism for redistribution of differentiated income is worked out it will be increasingly expedient to switch to state purchase prices that are uniform for large zones of the country. Combined with planning of state purchases such prices will become a powerful lever for economically efficient siting of the production of agricultural output.

Our country makes broad use of price stimulation for output quality. Improving quality is encouraged by higher earnings for each quintal for almost all the most important types of agricultural output. Nonetheless, in many cases the material incentive is inadequate. The amount of incentive payments is low for some types of output, which provides little incentive to campaign for better quality. An example is the sunflower crop. For other types of output different levers and stimuli are more effective. In the case of sugar beet growing it is much more profitable to get a higher beet yield regardless of sugar content than it is to increase the content of sugar even though raising sugar content is encouraged by price supplements. This situation will continue as long as the work of individuals, enterprise collectives, and rayons, oblasts, and republics is evaluated by yield of beets, not by production of sugar per unit of area. In this case it is necessary, in addition to increasing price supplements for output quality, to change the indicators used to evaluate the activity of enterprises and organizations.

Until now revisions of state purchase prices for agricultural output have usually been done when existing prices became an obvious obstacle to further development of the production of particular types of output or of agriculture as a whole.

This inevitably led to a weakening of the role of economic levers and stimuli, incomplete use of cost accounting, and a decrease in the rate of development of agriculture.

In view of the enlarged role of the five-year plans it would be wise when working them out to establish prices for agricultural output for the next five-year planning period as a step to refine the economic mechanism. In this case the prices that existed in the preceding five-year plan can be changed for some types of output and some regions, slightly adjusted for others, and kept unchanged for still others. But in all cases the prices for agricultural output for each new five-year plan should perform the functions considered above with maximum efficiency.

The effectiveness of cost accounting depends equally on the soundness of prices for the means of production delivered to agriculture by other sectors; these prices together with the prices for agricultural output are the principal means of insuring the proportions between agriculture and industry established for the particular period. The widely used special-purpose budget financing of agriculture in a planned economy and performance of redistribution functions by prices in practice lead to plan-based deviations in the exchange between industry and agriculture in the part that is realized through prices. These deviations, being planned in advance, serve as a means of insuring essential structural changes in the economy, and this mechanism should continue to be used in the future.

It is a different matter when the deviations from socially necessary expenditures contained in prices become greater during work on the plan. Then some partners receive the planned effect with less effort than envisioned in the plan while others, by contrast, come up short. The experience of recent years shows that the balance of resources in mutual relations with industry has not favored agriculture. The total expenditures of kolkhozes and sovkhozes in 1980 were significantly higher than in 1965 as the result of faster growth in prices for new types of machinery, equipment, and other types of material resources relative to growth in their productivity (return on investment), changes in the structure of the assortment of means of production being delivered toward more expensive items, the rise in the cost of services, and growth in depreciation deductions and the cost of repair work in connection with the higher cost of construction.

Economic science has for a long time posed the question of the need for constant regulation of the proportions of agriculture's exchange with other sectors. A number of proposals have been made on this matter. Many economists consider the simplest way to be avoiding any increase in the cost of the useful effect of new types of industrial articles when establishing wholesale prices for them.

Experience shows that this cannot always be done because of the great diversity of factors that make up total production costs and social cost, the unevenness of scientific-technical progress in different fields of activity, and other factors. In our opinion, it is more realistic to insure planned balance under conditions of changing state purchase prices for agricultural output, wholesale prices for industrial output, and costs of services using indexes of state purchase prices and the prices for which means of production are bought.

The financial-credit mechanism, which changes as change occurs in the proportion of organizations' own sources within the total amount of capital directed to the development of production, is closely linked to the level of prices for agricultural output and for the means of production and services delivered to the kolkhozes and sovkhoses.

The proportion of an organization's own sources in the total amount of capital used to form fixed and working capital can be viewed as an indicator of the economic independence of enterprises and of their potential operational ability in efficient organization of their own production and financial activity. The economic foundation of the conversion of sovkhoses to full cost accounting, which was carried out in the late 1960's and early 1970's, was an increase in profit and an enlargement of its role in financing expanded reproduction. At the same time the proportion of budget appropriations declined significantly. In connection with the conversion of all sovkhoses in the country, including low-profit and planned loss farms, to the new conditions of economic activity and with the fact that expenditures grew faster than production of agricultural output rose during the 9th and 10th Five-Year Plans, changes were made in the initial conditions of full cost accounting to provide for broad participation of budget capital in financing sovkhos production. The farms also greatly increased their proportion of borrowed capital; they were unable to repay significant sums and the state was forced periodically to write off these amounts.

As a result, the link between the organization's own capital and the rate of production development was lost at most of the sovkhoses. The situation was aggravated by the fact that budget appropriations were made without regard for production results. All a sovkhos had to do to receive them was to show up on the list of low-profit and planned-loss farms, and they were included there regardless of the causes. Such a financing system removes the accountability of production collectives for the financial results of their activities.

To increase the effectiveness of the financial mechanism the balance of financial resources needed for expanded reproduction must be maintained in a condition where capital obtained on a cost accounting basis predominates. Regulating the proportions of agriculture's exchange with other sectors by means of prices is only a condition for such balancing. Continuous maintenance of a rational balance of financial resources depends on the extent to which the enterprise collectives themselves have an interest in improving their economic and financial condition. Therefore, in addition to stimulating further growth in the production of output and improvement in its quality while simultaneously reducing expenditures, it would be advisable to introduce a mechanism that maintains this interest of enterprise collectives. For example, it would be possible to award bonuses for refusing budget appropriations in the case of the collectives of enterprises that are moving from the group of low-profit and planned-loss enterprises to the adequate profitability group, to allow a higher level of wages when the ratio between growth in wages and growth in labor productivity improves, or to take other steps.

Rational organization of the financial mechanism presupposes a combination of capital earned by the enterprises on a cost accounting basis and budget appropriations. The latter are used chiefly to finance large national (sector-wide) projects: land improvement, veterinary measures, land use organization, work to control pests and agricultural crop diseases, and the like. State budget

capital is also appropriated to compensate for the difference between industry's wholesale prices and the delivery prices at which industrially manufactured means of production are sold to agricultural enterprises and to resolve social problems in the countryside. Finally, the budget is a very important means of regulating reproduction in the sphere of the immediate cost accounting activity of agricultural enterprises and can wisely be employed even with the most rational organization of state purchase prices for the output of crop farming and animal husbandry. We refer here to using budget capital in the appropriate planning period to stimulate an increase in the production of certain types of output, introduction of highly efficient but capital-intensive technologies, and faster development of agriculture in particular areas.

In our opinion, it is advisable to single out budget appropriations made to finance part of planned measures carried on by the kolkhozes and sovkhoses themselves under conditions of their cost accounting activity as special-purpose subsidies which are established at a set level of the total expenditures needed to finance the particular measure (for example, from 20 to 80 percent depending on the importance of the measure). This insures that a certain amount of the kolkhozes and sovkhoses' own capital will be used and maintains their interest in finding the most efficient ways to attain the planned goals.

As the tasks laid out in the plan are accomplished the amount of budget subsidies for the particular measures can be reduced or stopped entirely with subsequent financing done through the enterprises' own capital and bank credit. The budget capital that is freed can be used to subsidize new measures that need priority in the new planning period.

Credit is an effective economic lever of socialist economic activity. It allows agriculture to overcome its characteristic gap between the continuous nature of production and seasonal receipt of output, which also means receipt of money from its sale. Furthermore, it makes it possible to "smooth out" the receipt of capital for expanded reproduction by years owing to the impact of weather conditions on production of output and it insures a time gain through faster growth in capital investment.

The effectiveness of credit depends greatly on the existing credit mechanism, and above all on credit planning. Under the practices established in the 1970's credit was considered during planning to be just one of the sources for financing planned measures; it was supposed to cover the difference between the demand for financial resources and the capital available from organizations' own capital and budget appropriations. In this case it is practically impossible to insure selection of the most efficient areas for use of credit, credit influence on accelerating economic processes, intensification of production, introduction of scientific-technical advances, and sometimes even repayment of loans at the scheduled time. The direct result of this system of credit planning, which itself was a consequence of price imbalance in the development of agriculture, was a sharp rise in the indebtedness of kolkhozes and sovkhoses for bank credit and an increase in the number of insolvent enterprises. The state was ultimately forced to write off their indebtedness for bank credit and grant long postponements of payments. The total amount of write-offs and postponements (for 10 years) of bank loans to kolkhozes and sovkhoses in the resolutions of the May 1982 Plenum of the CPSU Central Committee alone was almost 21 billion rubles.

This practice needs refinement. Plan-targeted use of credit should be structured with due regard for the dynamism inherent in credit resources and the possibility of using them defined not only by the length of realization and efficiency of the measures being supported by credit but also by the overall solvency of the farms. Even the most efficient measure, carried out at a planned-loss farm that will continue to lose money after the measure is carried out, cannot be an object of credit.

For this reason the credit mechanism must insure, on the one hand, the accountability of enterprises and economic organs for rational use of credit resources and repayment at scheduled times and, on the other hand, realistic opportunities for institutions of USSR Gosbank to influence the use of credit in strict accordance with its designation and an enlargement of the role of these institutions in making decisions on granting credit upon requests by kolkhozes and sovkhoses and cutting off credit to agricultural enterprises if their economic situation worsens to the point where they are unable to repay credit.

The economic accountability for work of kolkhozes and sovkhoses which will be consistently in the low-profit or planned-loss group even in conditions of price balance must be borne not only by the collectives of the enterprises but also by the economic organs (who are supposed to receive for disposal a part of the centralized capital of the farms and a certain part of budget appropriations), and not by institutions of USSR Gosbank, as frequently happens when the bank grants credit to agricultural enterprises regardless of the condition of their accounts for indebtedness under earlier loans and their economic and financial situation.

Cases of failure to observe the basic principle of credit, repayment of loans, should not generally go beyond the limits of justified economic risk. And only where uncontrollable natural conditions have had an especially major impact on the results of agricultural production or they have repeatedly affected it beyond the normal frequency can there be extension of repayment, not to mention writing off kolkhoz and sovkhos indebtedness to the state for bank loans.

As the economy grows in scale and complexity of structure, economic contracts concluded by partners cooperating in the production process become more important. In a planned economy where plan assignments are mandatory, the parties can agree directly on the detailed assortment of products and services, quality indicators, times and conditions for delivery of output and performance of jobs, and various other indicators that characterize the mutual relations of the parties.

For this reason it is advisable in enlarging the role of contracts to make performance of them by time, quantity, quality, and assortment one of the chief indicators in evaluating the activities of the collectives of enterprises and organizations, in formation of their economic stimulation funds, and in awarding bonuses to managers and engineering-technical personnel. It is also essential to substantially raise accountability for failure to perform contracts or improper performance of them. In addition to increasing the size of penalties and fines, it would be important in this matter to eliminate the established practice of mutual forgiveness by parties who have breached a contract. Accountability should be unavoidable, except for cases where the breach of contract resulted from a natural disaster or other objective cause envisioned by law.

If one of the parties does not impose sanctions against the other party who has breached contract obligations, the sanctions should be imposed by the court (if the parties to the contract are kolkhozes) or by the arbitration tribunal on submission by the State Inspectorate for Procurement of Agricultural Output or other departmental organization.

The planned economy does not, in fact, preclude the situation where contracts precede rather than follow the plan. Examples of this kind of agreement would be indicators of production-technical service to kolkhozes and sovkhoses by enterprises of USSR Goskomsel'khoztekhnika [agricultural equipment] and USSR Soyuzsel'khozkhimiya [chemical services]. It is advisable to determine the planned volumes of equipment repair, hauling and application of fertilizer, equipment servicing, and other work done by personnel of the service enterprises and organizations on the basis of contracts that have been concluded. In this case all the contract indicators may be determined by the contracting parties themselves.

As the rights and accountability of enterprises and local organs are bolstered the sphere of application of such contracts will expand and the role of contract relations will grow.

One of the ways to strengthen contract relations in the process of selling agricultural output involves enlarging the rights of the kolkhozes and sovkhoses, who are selling the output, to choose the place and time of sale. We know that one of the results of the increase in production of food products is a simplification of the distribution procedure and an increase in decentralized procurement used to supply the local population. Decentralized procurement typically is conducted on the basis of agreement between the interested parties arising out of their interests connected to the production program of the partners. In this case the supplier enterprises are able to choose the buyer and are the party that makes the final decisions.

The effectiveness of administrative-legal levers of management depends significantly on whether the structure and functions of the agricultural management organs correspond to the established level of development of productive forces and production relations. In past years as the result of acceleration of the objective and, on the whole, positive process of separation of labor and specialization of agricultural production, various types of activity which had been carried out in the countryside at agricultural enterprises were separated from agriculture and independent enterprises and organizations emerged to supply kolkhozes and sovkhoses with material-technical resources, to service and repair equipment, to apply fertilizer and other agricultural chemicals, and to do land improvement work, construction, transportation, processing, and storage of output. They had their own sectorial interests and their own appropriate methods of economic activity. The link between the organizations and enterprises and the results of agricultural production became weaker and the departmental approach grew stronger in the development of agroindustrial production as a whole.

For a number of years the country searched vigorously for new forms of management for agriculture and its associated sectors of the agroindustrial complex.

Agroindustrial-type management organs were formed extensively in fruit and vegetable growing, poultry raising, fur farming, and several other sectors, both at the level of immediate production and for the country as a whole (the USSR Ministry of Fruit and Vegetable Industry, USSR Ptitseprom [Poultry Industry], and others).

Integration of production, processing, storage, and sale of output within the framework of unified management organs makes it possible to use administrative methods of influence to decide many questions of eliminating departmental lack of coordination among cooperating enterprises and to insure proportional and balanced development. Even in this case, however, full organizational delineation is preserved among the direct producers and the many enterprises and organizations that provide services to them as well as among the enterprises themselves which specialize in the production of different types of output but are linked by the same production and social infrastructure of the countryside and use the limited natural and labor resources of a certain area. That is why territorial organs of intersectorial (interdepartmental) management, including enterprises with different departmental affiliations and different degrees of subordination, have begun to appear on an experimental basis in different regions of the country. A number of republics have accumulated some practical experience with the activity of such management organs on the rayon level. This know-how was approved in the resolutions of the May 1982 Plenum of the CPSU Central Committee, according to which rayon and oblast agroindustrial associations have now been formed in all rayons and oblasts of the country.

The formation and functioning of these organs is based on combining sectorial and territorial management with dual subordination of the enterprises and organizations included in them (to the territorial organ and to the higher-ranking organ of sectorial management). This presupposes a rigorous delineation of functions between them as to management of the enterprises. The territorial intersectorial organs are assigned operational management and coordination of the activities of the member enterprises and also, in part, planned distribution functions, above all regulating the development of the production and social infrastructure and the use of local production resources. The sectorial organs keep the principal plan and cost accounting levers which insure national economic interests, uniform technical and technological policy, and accelerated introduction of scientific-technical advances.

We cannot agree with the desire that exists in the local areas to overexpand the functions of the territorial intersectorial organs of management, especially in their formative stages, by a corresponding reduction in the rights and duties of the sectorial organs. The inevitable results of such an approach will be unqualified management of the enterprises and organizations of various sectors, a decline in the role of scientific-technical progress in the development of agroindustrial production, and a bloating of the administrative apparatus that will be hard to control.

A rational combination of economic and administrative-legal levers of agricultural management is a reliable guarantee against a one-sided approach when refining the economic mechanism and the forms and methods of sector management.

This will promote, on the one hand, a situation where national interests as reflected by the most important plan indicators are guaranteed priority and, on the other hand, a significant broadening of the initiative and independence of enterprise collectives in choosing the ways and means of attaining the assigned goals. This will make it possible to use the land and the labor and material resources of the sector with maximum efficiency to carry out the national Food Program.

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ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

CENTRAL COORDINATING BODY FOR CONSUMER GOODS PRODUCTION IN UZBEKISTAN PROPOSED

Tashkent EKONOMIKA I ZHIZN' in Russian No 4, Apr 83 pp 17-19

[Article by I. Ustimenko: "Develop Intersectorial Links"]

[Text] The selection of materials published below sets forth ways to overcome the departmental barriers that separate group B sectors and make them into an interdependent complex subordinate to unified leadership and tells about experience accumulated in solving this problem in other republics of the country.

The materials, of course, do not claim to offer a final solution to the problem. But they provide food for thought and exploration and inspire us to compare and evaluate alternative models of this complex and substantiate the most effective ones. We call on our readers to do this.

Demand and supply... The two poles of the circulation sphere. The former is expressed by the 17 million inhabitants of Uzbekistan, with our republic's distinctive "youthful" age structure and pattern of settlement (about 60 percent of the population lives in rural areas). And their desires reflect the demographic and climatic features and national traditions and customs of Uzbekistan.

The supply is provided by more than 1,000 enterprises that produce for the market. More and more factories and plants are becoming involved in making consumer goods. The number will reach 1,176 this year. Plans envision production of output worth more than 5 billion rubles.

In recent years the group B sectors have grown into a vast and influential sphere of production. One can judge the significance of the enterprises that produce consumer goods in the economy of the republic by the fact that their output is roughly one-fourth of the entire volume of industrial production in Uzbekistan.

But this very sphere has become the arena of activity of nearly a dozen ministries and departments. And despite the powerful demands of the day, they all work in isolation, guided only by their own interests. In short, departmental barriers have become an obstacle to efficient use and expansion of our production potential.

Lack of communication among sectors, relying exclusively on their own strengths, and ignoring the potential of intersectorial cooperation are causing great harm to the common cause.

Who can deny that parallelism in the activity of certain group B sectors can be assessed as a manifestation of unhealthy departmental interests? And if we look at the sectorial structure of local industry in the republic, we are immediately struck by the large proportion of production facilities that duplicate light industry; the figure reaches 70 percent. Garments and personal articles make up almost half of the output produced.

At the same time the proportion of cultural-domestic and household articles is not more than 15 percent of total production volume. And the production of essential building materials -- bricks, rubble stone, and lime -- remains in the embryonic stage.

We can anticipate the reaction of certain opponents who will shrug their shoulders and look puzzled: "But what is the problem? More goods are being produced..."

Are they? This depends on what kind of goods we mean. Sample studies made by the State Inspectorate of the Quality of Goods of the UzSSR Ministry of Trade show that local industry has not been able to increase the volume of high-quality goods; in fact, it has declined. Whereas in 1981 one out of three articles inspected did not meet standards, last year it was one out of two.

This means that virtually half of the output being produced by the sector is transferred to the lower grades, and then it sits unwanted in the warehouses of the wholesale depots. This kind of "growth" can only cause an ironic smile.

Isn't it clear that assortment parallelism produces a purely symbolic gain in the mass of goods, while the rush to produce profitable items promising a high rate of growth in industrial production inevitably leads to a situation where making articles in the group of "1,000 small things" is relegated to the back burner. And so while we have a surplus of some items, other goods that everyone needs are in short supply.

But we can only free local industry from the role of double, a pale copy of light industry, and establish an economically expedient assortment of products produced which will make it possible to more fully satisfy consumer demand, especially for household goods, if these matters are put under the jurisdiction of a unified management of the group B sectors.

The domestic service enterprises are also "little brothers" of light industry. Ignoring their chief duty, to perform the individual orders of their customers, they are increasingly switching to small series production of clothing, knitted goods, footwear, and furniture. The earnings from this kind of output, aimed at the market in general, not at specific customers, reaches 90 percent of the total volume of domestic services production.

Domestic services personnel themselves justify this tendency by saying that the sector is filling a need for certain high-quality goods that are in short supply. They claim that their enterprises are very sensitive to the winds of fashion and this is the secret of their greater competitive ability. They claim that they can reorganize production and update models faster than large industrial enterprises.

It is hard to argue with this. One would think that we could only be happy that the consumer is receiving scarce goods. But at what cost is this being achieved? Making clothing, footwear, and other articles manually in a shop is much more expensive than making them on the flow lines of industrial enterprises with their centralized cutting of fabrics and leather and their specialization of workers in preparation of semifinished parts and completing the finished articles. And if the domestic services enterprises are not only not losing money but even make a profit, it is only because their products are not subject to the turnover tax.

So where other conditions are equal, it is much more advantageous for society to produce consumer goods at industrial enterprises. Society cannot tolerate a situation where shops, trying to be like factories, turn away from their clients and reduce the scale of services to individual customers.

We are speaking of just two ministries who are losing their own personalities, whose line of development contradicts the principles of reasonable management and the wishes of the consumer. But there are many more such deviations. And if the group B sectors are not going to resemble the chaotic quartet in the Krylov fable but rather act as a well-conducted orchestra, we must put an end to lack of coordination in their activities and subject them to unified management.

V. M. Glushkov, one of the founders and organizers of cybernetics in our country, once said: "Management [upravleniye] means conducting the orchestra of relationships." The paramount condition for turning the group B sectors into a well-ordered system is to establish rational intersectorial relationships which will make it possible to solve major problems together, not separately. "All for one and one for all" -- this is the guiding principle that can join the different sectors into a business-like cooperating system.

Intersectorial cooperation is precisely the foundation on which it is possible to build large, centralized repair bases and joint enterprises to produce machine-tool accessories and containers in place of the semiprimitive departmental sections. Valuable know-how and technical innovations would no longer be the secret of a certain firm, but would belong to everyone. It would become possible to eliminate the confusion in the geographic siting of production and to prevent the clustering of enterprises and branches with the same specializations but subordinate to different departments in one place.

What would group B be like if it were made into a unified complex? What ministries and departments would form its essential framework? What would be the organizational structure of management? And lastly, what kind of horizontal relations, what forms of cooperation could be the unifying principle?

We have no ready-made answers to these questions today. Economic scientists of the republic are not showing any interest in the problems of refining the target-program method of planning and managing groups of interrelated sectors. This criticism should be directed first of all to the collectives of the Institute of Economics of the UzSSR Academy of Sciences and the Scientific Research Economics Institute of UzSSR Gosplan. Out of inertia the books and articles that come out in the republic treat the problems of industrial economics chiefly within the framework of the sectors, without considering their interaction.

Meanwhile in other parts of the country people have begun finding forms and methods for organizing complexes of this type through exploratory and experimental work.

The resolutions of the 26th party congress oblige us "to insure development and step-by-step realization of comprehensive target programs for the most important socioeconomic problems, first of all the food problem and development of the production of consumer goods and services..."

What are the advantages of the target program approach? How can we explain the fact that it is more and more frequently used as a method of planning and organization? Above all it helps subordinate current management to solving problems of the long-term development of social production; it forms a bridge, so to speak, between the present and the future.

Further, it makes it possible to thoroughly substantiate and correctly organize performance of measures to solve key national economic problems: determine the goal and principle stages in carrying out tasks precisely; balance material, labor, and financial resources; coordinate the activity of performers by times.

Comprehensive target programs to increase the production of consumer goods are already being carried out in some oblasts of the RSFSR, the Ukraine, Belorussia, Latvia, and other Union republics. The labor collectives of leading enterprises in Moscow and Sverdlovsk Oblast were the initiators of this movement.

Realization of the comprehensive program required coordination of the activity of various ministries and department and of enterprises and organizations that were located far from one another. Coordinating centers have already been set up in some places.

The first center of this type was formed in Minsk through the combined efforts of the Baltic republics, Belorussia, and Moldavia. It made it possible to establish contacts among enterprises in different parts of the country. Taking on the functions of a middleman, the coordinating center distributes orders for production of scarce output, assembly components, containers, and the like.

Enterprises hundreds and thousands of kilometers away have become its business partners. At the initiative of the coordinating center the Belorussian Production Association began delivering machine-tool accessories and dies for the manufacture of consumer goods to one of the Riga production associations. A model of bulky [korpusnoy] furniture was borrowed from Moldavia to put into production. In their turn, Belorussian specialists sent their Latvian colleagues the documentation for the Belorusskaya Khata set of furniture.

The activities of the center include exhibitions of innovations and work meetings with representatives of industry and trade. Through combined efforts they were able to significantly increase the production of non-centrally planned consumer goods at enterprises of USSR subordination in Belorussia and to broaden their assortment.

The experience of the Ukraine is interesting. They assigned the job of coordination to the commission on questions of production of group B output and trade of

the Presidium of the republic Council of Ministers. It includes the heads of ministries and personnel from enterprises and planning and financial organs.

Beginning from this experience we will propose a model for an organ of unified management over a complex that produces consumer goods for our republic.

It can be a coordinating council consisting of executives and leading specialists of the ministries involved in production of consumer goods and executives from Gosplan. The State Committee on Standards and state committees on labor and prices can be included in it. In our opinion, this organ should be headed by the deputy chairman of the Council of Ministers. The coordinating council should be given the status of a directive body whose decisions are mandatory for all.

But what are the functions of the coordinating council? It would not duplicate the work of the ministries, but rather would synthesize and adjust their plans, working out measures to enlarge capacities, site production rationally, carry out technical re-equipping, implement enterprise specialization and division of labor among them, follow a uniform technical and assortment policy, and improve the consumer qualities of output.

It would also face the necessity of solving pressing intersectorial problems. It would submit its proposals on various issues related to carrying out the comprehensive program to the republic Gosplan and Council of Ministers.

The main feature that would distinguish its activity would be its orientation to the future. By analyzing and comparing different alternatives for development of the complex and considering current affairs it would have to determine the extent to which the particular solution would promote the long-term strategic goals of the Communist Party, above all the continued economic and social progress of society.

Development and step-by-step implementation of a comprehensive target program for increasing the production and broadening the assortment of consumer goods and improving their quality will put an end to interdepartmental warfare and disorganized, sometimes inadequately substantiated actions. It will become a reliable instrument for planned management of the social development of our republic.

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ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

ECONOMIC SANCTIONS FOR VIOLATION OF STANDARDS, SPECIFICATIONS

Moscow EKONOMICHESKAYA GAZETA in Russian No 32, Aug 83 p 16

[Statute of the USSR State Committee for Science and Technology, the USSR Ministry of Finance, the USSR Central Statistical Administration, the USSR State Committee for Standards and the USSR State Committee for Prices of 12 July 1983: "Economic Sanctions for the Violation of Standards"]

[Text] The USSR State Committee for Science and Technology, the USSR Ministry of Finance, the USSR Central Statistical Administration, the USSR State Committee for Standards and the USSR State Committee for Prices approved on 12 July 1983 the Statute on the Procedure of the Imposition of Economic Sanctions for the Violation of Standards and Specifications, the full text of which is published below.

1. This Statute has been drafted in conformity with Decree No 937 of the CPSU Central Committee and the USSR Council of Ministers of 10 November 1970, "On the Increase of the Role of Standards and the Improvement of the Quality of the Output Being Produced," and Decree No 612 of the CPSU Central Committee and the USSR Council of Ministers of 30 June 1981, "On Stepping Up the Work on the Economy and Efficient Use of Raw Material, Fuel, Energy and Other Material Resources," and establishes a uniform procedure of the imposition of economic sanctions for the violation of standards and specifications.*

The Statute applies to the following state, cooperative and other public enterprises, associations, organizations and institutions:**

planning and design, scientific research organizations, developing enterprises--in case of the development and production of products;

* In this and subsequent paragraphs there are also understood by the standards and specifications the models (standards) and formulas, which have been approved in accordance with established procedure.

** The state, cooperative and other public enterprises, associations, organizations and institutions, which are listed in Paragraph 1, hereinafter are called "enterprises (organizations)."

enterprises, associations and organizations--in case of the sale of industrial products;

agricultural, procurement, supply and marketing, wholesale and retail trade organizations and enterprises--in case of the sale of products and their storage;

transportation enterprises--in case of the transportation of products (freight);

enterprises, organizations and institutions of the sphere of services--in case of the rendering of services.

2. Economic sanctions are imposed for the following violations:

the sale by enterprises (organizations) of products (including repaired products), which do not meet the requirements of the prevailing standards and specifications for these products with respect to quality and completeness;

the sale by enterprises (organizations) of export commodities, which do not conform in quality to the requirements of the supply orders, if the indicated commodities cannot be used for the proper purpose;

the sale by enterprises (organizations) of products, which do not meet the requirements of the prevailing standards and specifications with respect to the container, packaging and labeling, if these violations of the requirements of the standards and specifications entailed the worsening of product quality;

the transfer to the client or to production of design, technological and planning documents, which do not meet the requirements of the standards and specifications with respect to product quality and the technological processes;

the nonobservance of the standards and specifications when transporting products, if this entailed the worsening of their quality, damage or above-standard losses;

the sale of means of measurement, which have not undergone state tests in conformity with the requirements set by the standards;

the rendering by consumer service enterprises (organizations) of services of a production nature, which do not meet the requirements of the standards and specifications with respect to the quality of the services.

3. The enterprises (organizations) are obliged to contribute to the revenue of the union budget the entire amount of the actually obtained profit (saving)* in case of the sale of products, their transportation, the transfer to the client or to production of design and technological documents and the rendering of services with the violations listed in Paragraph 2 of this Statute.

The indicated amount of the profit is paid to the budget no later than the 20th day of the month which follows the month in which the violation was committed, and is listed in Section 12, Paragraph 27 of "The Receipt of the Profit From the Sale of

* Hereinafter the profit.

Products Which Have Been Produced With a Deviation From the Standards and Specifications," State Bank reporting symbol 40.

Note. Enterprises of the food industry pay to the revenue of the budget the amount of the saving which has been obtained from the output of products with a deviation from the standards, specifications and formulas in the manner established by Letter No 263 of the USSR Ministry of Finance of 15 August 1966 with the addition introduced by Letter No 186 of the USSR Ministry of Finance of 9 June 1967.

4. The enterprises (organizations), which have committed the violations listed in Paragraph 2 of this Statute, should not include the output, operations and services, which do not conform to the standards and specifications, in physical and value terms in the reports on the fulfillment of the plan on:

scientific research and experimental design work, planned output;

the output;

the wholesale (retail) commodity turnover and procurement;

the transportation of freight (including by nomenclatural groups of freight) and the freight turnover;

the sale of personal services to the population.

The exclusion of the output, operations and services, which do not conform to the standards and specifications, from the reports on the fulfillment of the plan is carried out by the enterprises (organizations) in the manner established by the USSR Central Statistical Administration.

5. The State Committee for Standards, the ministries, departments and their organs, which have been granted in accordance with established procedure the right to verify the observance of the standards, specifications and product quality,* in all instances of the identification of cases of the nonfulfillment of the requirements of Paragraphs 3 and 4 of this Statute issue to the enterprise (organization), as well as the financial organs and the organ of state statistics at the location of the enterprise (organization) orders (the form is attached), which are mandatory for execution, on the withdrawal of the profit for the revenue of the budget and the making of amendments in the reports on the fulfillment of the plan. The orders are issued on the basis of a certificate, which has been drawn up by the control organ in accordance with the results of the check or a decision of the board of arbitration or the court, which has entered into force. Copies of the order and the certificate, on the basis of which this order was issued, are sent to the ministry (department) in accordance with the subordination of the enterprise (organization).

In case of the issuing of an order to ministries, departments and their corresponding organs a copy of the order is also sent to the territorial organ of the State Committee for Standards at the location of the enterprise (organization), on which the economic sanctions have been imposed.

* Hereinafter the control organs.

6. The control organs issue orders in the instances, which are indicated in Paragraph 5 of this Statute, with respect to the output, operations and services which are included in the reports on the fulfillment of the plan of the current and past year.

The amendments to the report on the fulfillment of the plans are made by the enterprises (organizations) during the period under review, during which the order was received.

7. In the certificate, on the basis of which the order was issued, there should be reflected without fail:

the nature of the violations--the parameters and indicators, in accordance with which the output, operations and services do not meet the requirements of the standards and specifications, the amounts of the deviations from these parameters and indicators, their influence on the quality of the output, operations and services;

the period, during which the violation of the standards and specifications occurred;

the volume of output, operations and services, which do not conform to the standards and specifications, in physical and value terms (in the prices and rates, which have been adopted for the determination of the corresponding indicators which are liable to correction);

the amount of the profit, which was obtained from the sale of the output, the performance of operations and services, which do not conform to the standards and specifications (for each month, during which a violation of the standards and specifications occurred);

the data which confirm the cases of the sale of output, the performance of operations and services, which do not conform to the standards and specifications.

If the output, operations and services, which were excluded from the reports on the fulfillment of the plan in accordance with the order issued by the control organ, have been improved by the enterprise (organization), which is the developer, producer and supplier, to a condition which conforms to the standard and specifications, the corresponding output, operations and services are included in the reports on the fulfillment of the plan in the manner established by the USSR Central Statistical Administration.

8. The amount of the profit, which has not been paid by the enterprise (organization), on the date indicated in Paragraph 3 of this Statute is collected by the financial organs incontrovertibly on the basis of the order which was issued by the control organ. The adding of a fine in the amount of 0.05 percent for every day of delay is made in conformity with the instructions of the USSR Ministry of Finance on the procedure of the collection of taxes and nontax payments, which have not been paid on time.

The financial organs within a 5-day period inform the control organ about the execution of the order.

9. The profit, which was paid to the budget by the enterprises (organizations) in conformity with this Statute, is not taken into account when evaluating the results of their work (the tallying of the results of the all-union and republic socialist competition, the deductions for the economic stimulation funds and other funds, which are formed by means of the profit, and so forth).

10. The economic sanctions for the violation of the standards and specifications are imposed regardless of the other types of liability of the enterprises (organizations) for the violation of the standards and specifications.

11. In those instances when products, which do not conform to the standards and specifications, have been sold by industrial enterprises, their value is taken into account and reflected in the accounting returns as the sale of other physical assets, the obtained profit--in accordance with the line item "The Profit Obtained From the Sale of Products Which Were Produced With a Deviation From the Standards and Specifications," while the saving, which formed as a result of the violation of the established standards, specifications and formulas (for products of the food industry)--in accordance with the line item of a similar name of form No 2-kv of the quarterly reporting and form No 12 of the annual report.

The profit, which was obtained from the sale of products, which do not conform to the standards and specifications, and was paid to the revenue of the budget, is taken into account in account 80 "Capital Diverted at the Expense of the Profit" (in correspondence with account 73 "Settlements With the Budget") and is reflected within the line item "Payments of the Profit to the Budget, Which Are Connected With the Imposition of Economic Sanctions (As a Result of the Overstatement of Prices, Deviation From the Standards and So Forth)" of form No 2-kv of the quarterly report and form No 2 of the annual report.

When evaluating the fulfillment of the plan on the profit the actual balance sheet profit should be decreased, while for unprofitable enterprises the losses should be increased by the amounts which were paid to the budget in conformity with this Statute.

When determining the growth rate of the profit the profit (loss) during the corresponding period of the past year is cited without the decrease (increase) by the amount of the profit which was withdrawn for the budget in accordance with the instructions set forth above.

The enterprises (organizations) of other types of activity take into account and reflect in the reporting the corresponding indicators in much the same way as the procedure which has been established for industrial enterprises by this paragraph of the present Statute.

12. In the settlements with the budget on the net surplus of the profit the amount of the profit, which was obtained from the sale of output, the performance of operations and services, which do not conform to the standards and specifications, and was paid to the budget, is not included in these lines of Paragraph 1 of the calculation in conformity with Instruction No 205 of the USSR Ministry of Finance of 17 November 1981.

In the settlements on the income tax from cooperative and public enterprises (organizations) the amount of the balance sheet profit is reduced by the amount of the profit, which has been paid to the budget, from the sale of output which does not conform to the standards and specifications.

In the settlements on profit withholding taxes (Appendix No 5 to Instruction No 290 of the USSR Ministry of Finance of 30 July 1965) the amount of the profit, which was obtained in connection with deviations from the standards and specifications (the saving from the decrease of the production cost) and was paid to the budget, is shown in accordance with the free line of Paragraph 5--"Payments of the Profit Which Was Obtained in Connection With a Deviation From the Standards and Specifications."

With respect to the ministries, departments and enterprises (organizations), which have been changed over to the standardized method of the distribution of the profit, in the calculations of the payments to the budget from the actual profit the indicated profit and the saving are reflected in accordance with the free line of Paragraph 4 of the calculation--"Payments of the Profit Which Was Obtained in Connection With a Deviation From the Standards and Specifications"--Appendix No 4 of Instruction No 162 of the USSR Ministry of Finance of 12 October 1979.

The recording of the amounts of this profit, which have been added and paid to the budget, is carried out by financial organs on the personal account cards in accordance with form No 6--Appendix No 13 of Instruction No 38 of the USSR Ministry of Finance of 11 June 1976.

13. The complaints about the groundless issuing of orders on the withdrawal of the profit for the revenue of the budget and the making of amendments in the reports on the fulfillment of the plan are sent within a 10-day period from the time of the receipt of the order to the organ which is superior with respect to the control organ which issued the order. A decision on the complaint is made no later than 30 days after the day of its receipt.

The submitting of a complaint does not halt the execution of the order.

14. The return of the amounts of the profit, which were incorrectly transferred to the budget, is carried out by the financial organs on the basis of the decision of the control organ, which repealed the imposition of economic sanctions, if a year's time since the day of their payment to the budget has not elapsed.

15. The enterprise (organization) no later than 10 days after the payment to the budget of the amounts of the profit and the making of amendments in the reports on the fulfillment of the plan in conformity with Paragraphs 3 and 4 of this Statute sends to the territorial organ of the State Committee for Standards and to the ministry (department) with respect to subordination the corresponding report, while if the amendments to the reports on the fulfillment of the plan were made on the basis of an order (Paragraph 5), the indicated report is also sent to the control organ which issued this order.

16. The ministry (department), in the system of which the enterprise (organization), which violated the requirements of the standards and specifications, is included, and the control organs, which issued the order, every quarter made a check

of the execution of the orders in the area of the making of amendments in the reports on the fulfillment of the plan.

During this period the organs of state statistics at the location of the enterprise (organization), which received the order, are obliged to inform the control organs about the execution (nonexecution) by this enterprise (organization) of the order issued to it in the area of the making of amendments in the reports on the fulfillment of the plan.

17. Economic sanctions are not imposed, if:

the sale of agricultural products with deviations with respect to quality from the requirements of the standards and specifications with the use of the corresponding price and weight reductions is permitted by the USSR Council of Ministers or on its instructions by the councils of ministers of the union republics;

the enterprise (organization) has permission for a temporary deviation from the requirements of the corresponding state standards, which was issued by the USSR State Committee for Standards or the USSR State Committee for Construction Affairs (in accordance with the products list attached to it), or permission for a temporary deviation from the requirements of sectorial and republic standards and specifications, which was issued by the ministry, the department, the council of ministers of the union republic, which approved these standards or specifications, and was submitted for approval to the State Committee for Standards. At the same time as the issuing of permission for a temporary deviation from the requirements of the standards and specifications in accordance with established procedure reductions on the prevailing wholesale prices (rates) or payments to the budget during the period of effect of the permission should be introduced by pricing organs.

18. The procedure of the imposition of economic sanctions for the violation of the standards and specifications for special-purpose products, which are sold to military organizations, is established separately.

19. To regard as null and void:

Letter No 47/4-102/10/2 of the USSR Ministry of Finance, the USSR Central Statistical Administration and the USSR State Committee for Standards of 17 March 1971, "On the Procedure of the Payment by Enterprises and Organizations to the Revenue of the Budget of the Amounts of the Profit Which Was Obtained From the Sale of Products Which Were Produced With a Deviation From the Standards and Specifications, and on the Monitoring by Financial Organs of the Transfer of These Amounts to the Budget";

Letter No 137 of the USSR Ministry of Finance of 18 July 1972, "On the Tightening Up of the Monitoring of the Payment by Enterprises and Organizations of the Amounts of the Profit (Saving) Which Was Obtained From the Sale of Products Which Were Produced With a Deviation From the Standards, Specifications and Formulas."

7807

CSO: 1820/146

ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

EXPERIENCE WITH NORMATIVE NET OUTPUT DISCUSSED

Moscow EKONOMICHESKAYA GAZETA in Russian No 11, Mar 83 p 7

[Article by P. Burenok, deputy chairman of the ispolkom of the Chernigov Oblast Soviet of People's Deputies, chairman of the oblplan: "The Experience with Employing Normative Net Output"]

[Text] Since January of this year 31 percent of the industrial enterprises and associations in Chernigov Oblast have been transferred to the planning of production in accordance with normative net output. A sufficiently high percentage for a confident confirmation based on practice of the many advantages which the use of this indicator provides in production. One of the chief advantages is probably the fact that it is no longer possible to create the appearance of an increase in labor productivity on the basis of the use of expensive materials and component products, as was the case in the past. There is only one way out: an improvement of production and an increase in the quantity of output with a decrease in labor expenditures. This is favored by the stability of the net output normatives.

The normative net output introduces new elements into the work of all of the structural subdivisions of industrial enterprises, including shops and teams. This can be confirmed by the work practice of the Nezhin enterprises--agricultural machinery and machinery plants,--and the Chernigov Confectionary Factory.

For example, in order to shift over to planning and evaluating the work of shops in accordance with the normative net output indicator the "Nezhinsel'mash" conducted work to improve and deepen cost accounting. Work was done to develop and introduce net output normatives for all products in a breakdown by basic shops, expenditure norms for materials, purchases and component for products and shops in natural and monetary terms, a wage normative for products and shops, a fuel and energy resources normative, and others.

When the shift was made to planning and evaluating work on the basis of the net output normative a study was made of the work experience of the country's best enterprises.

Since the time that the normative net output (NNO) began to be used in shops and teams planning discipline and the validity of planning assignments increased, and an interest in overfulfilling the plan on the basis of materials intensive

output decreased. For example, the expenditure of materials and raw materials for a ruble of commodity output decreased by 3.6 percent.

The employment of the NNO decreased the diverse profitability of products. In the past, for example, the production of spare parts was put in the category of an undesirable products list on account of the large specific labor intensiveness and low share of material expenditures, since it lowered the level of labor productivity and led to an increase in the wage fund. For example, while for basic output the specific labor intensiveness per 1,000 rubles in wholesale prices came to 54.9 rubles, for spare parts it was 120.1 rubles, or 2.2 times greater. Today, however, the specific labor intensiveness for spare parts calculated on the basis of the normative net output is approximately equal to the basic output and comes, respectively, to 212.2 and 252.2 rubles.

The Nezhin Machinery Plant has been working for several years on the basis of the NNO. The enterprise specializes in the production of equipment for the food, fish, and processing industries. The output products lists consist of around 100 items.

The normatives are employed in a differentiated manner in the plant's shops. The NNO is given only for machinery sets so that individual parts are not overstocked. Thanks to this, the shops have begun to operate in a more rhythmic manner, which in the final analysis has had a positive effect upon the fulfillment of the plan.

An enterprise standard has been worked out with regard to intra-shop planning and cost accounting, for which purpose the Dnepropetrovsk overall system of output quality control has been adopted. On the basis of this document, the NNO is planned for teams with regard to the capabilities of each member of the collective. Moreover, a permanent 5-year base output has been established for the teams. Differentiated bonus percentages have been established for an overfulfillment of planning assignments. Every year the estimated normative of the NNO is corrected in the direction of increasing it with regard to the increase in labor productivity which has been planned for the enterprise.

I want to emphasize that with work according to the new conditions it is very important to adjust all of the links of the production chain, and, in the first place, supply. Within the plant this mechanism has been put into good order. If, for example, in the past a shop needed some materials or raw materials, shop supply workers were sent several kilometers to warehouses. Frequently materials were delivered late. This introduced nervousness into the work of the shops, and gave rise to an arrhythm in production. Now supply is centralized and is under the management of a commercial director. Everything that is needed for the work of a subdivision is supplied on time in accordance with a previously composed schedule. Recently instances of failures to deliver materials, technical documentation, and billets to shops have become rare. Moreover, on the whole, the plant has greatly improved the shipment of finished output to consumers.

With normative net output the introduction of new types of products and an improvement of their quality has become profitable. During the last two years

the machinery plant has produced 33 new products. In 1982 the proportion of output with the State Token of Quality was brought to 41.8 percent of total production.

The new indicator has also had a positive influence on the work load rhythm of production capacities. Since the shift to normative net output the number of multi-machine tool operators has increased, and workers have become more interested in increasing their skills and strengthening discipline.

Production indicators have also improved at the Chernigov Confectionary Factory. A review of output norms is having a positive influence there upon the fulfillment of the plan in accordance with normative net output. Thus, for example, the candy molding norm was reviewed in the candy shop--from 3,300 to 3,500 kilograms--and labor intensiveness decreased by 0.8 hours. As a result the workers' labor productivity increased, which made it possible to produce 80-100 tons of above-plan good quality output in a year.

The experience in employing normative net output at the oblast's enterprises has shown that the new indicator has basically justified itself. However, it is not to be expected that with the help of this indicator it will be possible to accomplish all of the tasks connected with increasing production efficiency and labor productivity and decreasing materials intensiveness. The use of the new indicator which measures labor expenditures has to be accompanied by an improvement of the entire normative base and, above all, of labor norms and normatives. Only on this condition will this indicator be genuinely a normative one. An analysis of the approved normative net output shows that they are not always proportional to labor expenditures and that they must be further perfected.

2959

CSO: 1820/131

ECONOMIC EXPERIMENT FOCUSES ON INDUSTRIAL 'INDEPENDENCE'

Moscow MOSCOW NEWS in English No 32, 14-21 Aug 83 p 3

[Text] A new economic experiment gets under way in the Soviet Union.

Although the experiment is local in nature, it is being carried out in five industries in three Union Republics (namely, the heavy and transport machine building industries, the electrotechnical and food industries in the Ukraine; the light industry in Byelorussia, and local industry in Lithuania). The project has great significance and very far-reaching objectives, indeed. The fact that the CPSU Central Committee and the USSR Council of Ministers have issued a special statement concerning the experiment is proof enough of its importance.

The idea of the experiment is to further increase the independence of industrial associations and firms by reducing the number of mandatory indices stipulated by the five-year development plan. The firms involved in the experiment will themselves dispose of their production development funds. None of their savings will be exempted.

The firms will have the right to invest independently in new technologies, with additional credits being granted for modernization and rebuilding. Firms will be encouraged to take the initiative in increasing the variety and the overall output of export machinery, equipment and instruments.

It is also recommended that firms be encouraged to promote employees developing efficient new technologies capable of producing more goods while employing fewer workers. This is regarded as being highly desirable. Why?

So far, it has been common practice to deposit money, saved on redundant jobs,

into the state budget. Now, the firms taking part in the experiment are going to use this money to give highly-qualified engineers and technicians the incentive to work more efficiently, and skilled workers to increase labour productivity and master new trades.

Another important point is that industrial collectives will control their large profits, made through increased economic efficiency. Each factory will contribute the state budget independently, instead of the centralized withdrawal of money from the factories' bank accounts, which is the case at the moment.

There is now greater flexibility in using production capabilities and incentives. Initiative is also given wider scope.

This July has marked the middle of the current five-year plan. Analysis has shown that intensive factors are now getting the upper hand in economic growth. As a result, labour productivity has been increasing at a higher rate, and this has accounted for 83 per cent of the entire industrial growth over this period.

The experiment is being carried out under extremely favourable conditions. The law on work collectives, and on increasing their role in the management of enterprises, offices and organizations came into effect on August 1. Under this new Law, a plan can only become valid after it has been approved by the work collective of workers, engineering and managerial personnel, who examine thoroughly their own potential and prospects. Such a plan is certain to be realistic in all respects.

PLANNING AND PLAN IMPLEMENTATION

SUGGESTIONS FOR IMPROVING LONG-TERM PLANNING OUTLINED

Talinn IZVESTIYA AKADEMII NAUK ESTONSKOY SSR: OBSHCHESTVENNYYE NAUKI in Russian
Vol 32, No 2, 1983 pp 89-100

[Article by Kal'yo Kas'k: "Certain Problems of Long-Term Planning"]

[Text] These problems can be separated into two groups. The first group consists of problems pertaining to the study of the objective of long-term planning. That is, they require an answer to the question of precisely what problems to designate for study. The second group is made up of methodological and organizational questions pertaining to the way the long-term national economic plan should be compiled.

For this purpose we shall briefly discuss the history of the emergence and the development of long-term national economic planning in recent decades. We shall attempt to define the objective and the specific nature of long-term planning and in our discussion of the two groups of problems mentioned, we shall make certain comments on the further methodological and organizational improvement of long-term planning. The small Union republic is the subject of our discussion. The article summarizes the experience accumulated by the author in his participation in scientific and applied projects of this kind and also explains in greater detail his ideas previously published, especially in [1].

The Current Situation

Works defining the main directions for development of the national economy and the republic economies for a period of 15-20 years have been published with various titles in recent decades. In addition, models or "projections" and so forth (they have various names) of the development and distribution of branches have been used for a long time, and main directions have been worked out for their technical development. Demographic forecasts are performed and patterns are worked out for the development and distribution of the productive forces and for regional planning, as well as general plans for the cities. They all define a specific aspect of long-term social and economic development and are frequently called "preplan studies." There has been a sharp increase in orders for such documents from ministries and departments.

* They are sometimes referred to as preliminary plan preparations or calculations.

The nature of these projects and their characteristic features are not completely clear, however. When the term "preplan studies" is used, the authors of these projects ordinarily do nothing more than simply enumerate them. We shall attempt to present a few thoughts on the matter.

We feel that good scientific substantiation is the prime feature of preplan studies. After all, they are designed to resolve certain specific problems related to national economic development. The results of the tasks and calculations performed in the course of producing these preplan preparations serve as the substantiation for the solution proposed for a given problem. It is impossible to present all of the calculations and justifications in an explanatory note attached to the national economic plan. This is one thing.

A second feature of the preplan preparations is the fact that they constitute the results of the resolution of economic, social and technological problems, which are used as relatively permanent justification for planning decisions. If we dismiss the adjustments which are made from time to time, these preparations can be considered to be the basic information for all the periods of long-term planning. But then the plan calculations and tasks are based on information on production assignments and resource ceilings, which changes as different versions of the draft plan are made up, and consequently they are valid once only.

A third feature of the preplan preparations is that they do not have a directive deadline for completion, even though they constitute programs for the resolution of some problem. Nonetheless, the measures outlined in these projects and their sequence should be considered as binding, as a well-reasoned limitation in the adoption of planning decisions.

The general plan for a city, as an example, is a directive document for the distribution of new industrial enterprises and residential areas, for environmental protection and so forth. The period considered in the plan cannot be taken as a directive assignment for development of the city for a specified number of residents within that period, however. It should be regarded more as a registering of the city's "capacity," as it should appear in accordance with the general plan. The scheme for development and distribution of the branch also differs from the long-term plan for the branch in that it does not involve specified periods of time. It establishes the sequence for the creation and the location of new capacities as the branch is developed up to the production volume prescribed in the scheme. The branch long-term plan, however, and especially the medium-range plan, specifies what portion of the program is to be accomplished within the planning period.

The final distinctive feature of the preplan preparations lies in the fact that they are relatively less detailed and not as specifically focused as plans.

We have referred to the preplan preparations as a more or less permanent information base for the long-term plan. To prevent them from losing their validity and their scientific substantiation, they should be periodically adjusted, taking into account possible changes in the forecasted processes and the measures specified, as well as changes produced by the resolution of problems already achieved.

In our opinion the constant updating of the preplan studies, along with coordination of the information flows among the plans for the various periods, is an important condition for assuring continuity in national economic planning.

Diagram 1 shows the place occupied by preplan studies within the system of national economic planning. Certain generalized terms are used, which need to be explained. Population distribution schemes refer to the rayon layouts and the general plans for the cities. The branch schemes for development and distribution and the schemes for development and distribution of the productive forces are merged and will henceforth be called production schemes. Together with technological progress forecasts, they all make up the development schemes. The diagram illustrates the role of the preplan studies in the preparation of information for the long-term plan of national economic development, as well as their coordination with (their adjustment to conform to) the figures for the finalized plan (flows of information from the boxes containing the branch and territorial breakdowns to the development schemes).

In view of all this we feel that we should agree with those authors who regard the preplan studies as a component of the unified system of national economic planning [2, p. 11; 3, p. 158]. If we do not consider the fact that there are different executive bodies involved (agencies of national economic control, scientific and planning organizations), there is no basis for considering the balance and variant calculations for the national economic plan as part of planning, and no grounds for not considering the applied scientific studies performed for resolving large economic and social problems as just that. We should underscore the fact that the extensive freedom of choice inherent in long-term planning results in an increased volume of essential technical and economic information on the different alternatives for development. We believe that the preplan studies reflect this pattern.

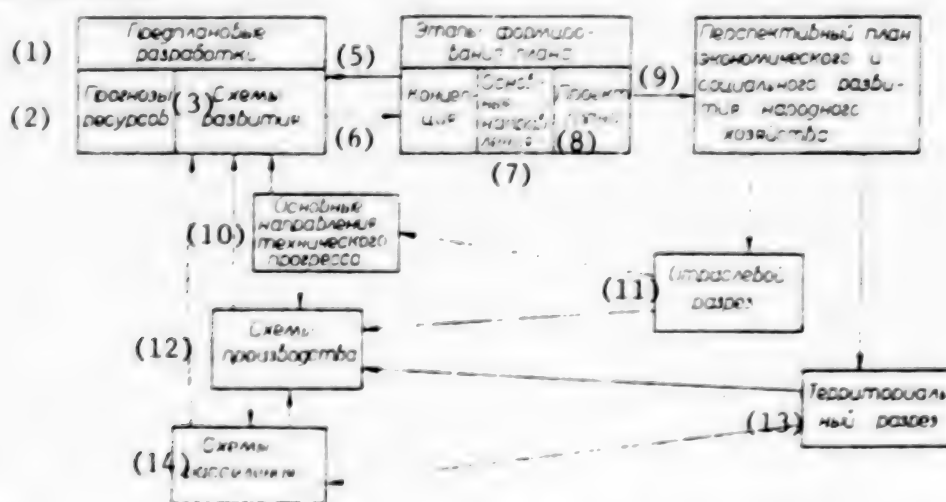


Diagram 1 Key:

- | | |
|----------------------------|---|
| 1. Preplan Studies | 9. Long-Range Plan for National Economic and Social Development |
| 2. Resource Forecasts | 10. Main Directions of Technological Progress |
| 3. Development Schemes | 11. Branch Breakdown |
| 5. Plan Development Stages | 12. Production Schemes |
| 6. Concept | 13. Territorial Breakdown |
| 7. Main Directions | 14. Population Distribution Schemes |
| 8. Draft Plan | |

Now let us take a look at how the ideas presented above appear within the context of the existing planning procedure. We have in mind primarily the present system of methods for compiling the plan for national economic and social development [3] and the two decrees passed by the CPSU Central Committee and the USSR Council of Ministers.*

The 1979 decree describes three types of long-range plans: the comprehensive program for scientific and technological progress in the USSR for a 20-year period, the basic directions for economic and social development for the 10-year period and the 5-year plan for economic and social development. Beginning in 1981 comprehensive programs have been produced for the Union republics as well.

Taking into account everything we have said, we can identify three "currents" of long-range programs in the practices of long-range national economic planning: population distribution schemes, production schemes and the comprehensive program for scientific and technological progress. We should not consider forecasting of resources in this respect, since these forecasts are not taken into account in all of the above-mentioned projects. Although the term "currents" describes their characteristic features with adequate precision, let us consider them in greater detail.

With respect to the planning objective, both the population distribution schemes, compiled under the auspices of the state committees for construction, and the production schemes describe spatial development: the former--from the standpoint of an efficient structure for centers of population, and the latter--from the standpoint of production. We do not need to demonstrate the fact that these problems cannot be resolved separately. The comprehensive program is a forecast of technological progress for socialism's physical production base. It cannot be realized without the parameters for the main long-term economic and social tasks, not to mention the forecasts of resources already mentioned.

We feel that there is justification for considering all of these types of plan developments as a large planning system, with the isolated development of its subsystems being difficult or even impractical. Let us put the theory into more specific form.

Two of the things mentioned above, the scheme for the development and distribution of the production forces and the comprehensive program, essentially claim the role of long-term programs on a national economic scale. The methods used for compiling and organizing them differ markedly, however. The former is similar in structure to the economic and social development plans, that is, it is broken down by branches and territories and contains composite national economic indices and balance calculations. The comprehensive program, however, is based on branch complexes or large national economic problems. The latter are actually special-purpose programs.

Although the branch complexes and special-purpose programs are effective elements in the coordination of intra-branch links and the regulation of the economic

* The decree "Improving Planning and Enhancing the Effectiveness of the Economic System with Respect to Increasing Production Effectiveness and Improving the Work Quality" the 1979 decree; the decree "On Measures to Further Improve Planning and Estimate Work," passed on 30 March 1981; the 1981 decree.

accountability interests of the branches, their coordinated development is still a fairly complex problem. This is due in the first place to the fact that it is not an easy matter to coordinate the production ties of a branch complex, even within the complex itself.* Not all of the branches by far are a part of only one complex, after all, especially those branches in the production infrastructure. In the second place, it would be out of the question to create a system of such programs without knowing the balances for the basic resources, materials and products, and this means that production and consumption balances also have to be compiled for the branches involved.

There is no need to demonstrate the validity of what we have stated about the unified system of long-range planning. We have stated nothing new. The matter is complicated by the fact that all three "currents" of programs occur under the supervision of different departments. Furthermore, all of these projects must be based on future economic and social conditions and most importantly, on future equipment and technology. It was not possible to take the latter into consideration in previous production schemes. The system-wide resolution of these problems only became realistic with the creation of a comprehensive program for scientific and technological progress.

With respect to the indices defining the substance and the extent of these projects, they are relatively stable and restricted in the schemes for the productive forces. This is due to the many years of making up these schemes under the methodological supervision of the Council for the Study of Productive Forces (SOPS) under the USSR Gosplan. The comprehensive program, however, abounds with indices, which to a significant degree duplicate data contained in the scheme for the productive forces or are excessively detailed. This situation is apparently due to the newness of this matter and the absence of a strong methodological center similar to the Council for the Study of Productive Forces under the USSR Gosplan, which would compile the comprehensive program. Supervision over the development of the separate programs and the combining of the programs into one is currently assigned to the relatively small organization of the Commission for the Study of Productive Forces and Natural Resources under the Presidium of the USSR Academy of Sciences and interdepartmental commissions functioning on a voluntary basis.

An important distinction between these projects is the fact that the schemes for the productive forces are compiled for a period of 15 years, while the comprehensive programs cover a period of 20 years. This is apparently due to the consideration that economic development depends upon the national economy's technical base.

I would like to make a few more comments on the coordination of these projects among themselves and with national economic planning. In the first place, it should be noted that although the programs and schemes discussed are in the nature of preplan studies, legally they would be part of the system of state long-term planning for economic and social development. The relevant methods [4] mention, although fairly briefly, both the comprehensive program [pp. 3, 10] and

* By branch complex the author means a production system with subsystems (branches, production units) and named after the branch turning out the finished product (construction, fuel and energy, and so forth).

production schemes [pp. 457, 464 and following]. Furthermore, the 1981 decree (paragraph 10) states that the production schemes must be observed in planning.

The linkage between the schemes for population distribution and for development lies in the fact that the former derive their basic information from the latter. In other words, everything the branches plan to locate in a given region or center of population must be located there, no matter what the cost of the additional production and non-production infrastructure.

In summary, we can state that there is a certain lack of coordination in the three "currents" of long-range programs compiled under the supervision of various departments. This is borne out by the following:

1. The fact that different methods are used for compiling them, that is, the absence of a common opinion on the substance of the long-range plan and on how to make up the plan;
2. The vagueness in the matter of sources of financing and of the executors (This applies both to the comprehensive programs and the schemes for the productive forces. In the Ukrainian SSR they are developed by the local council for the study of productive forces; in the Estonian SSR, by the Institute of Economics of the Estonian SSR Academy of Sciences, and so forth.);
3. The duplication of a significant part of the comprehensive program and of the scheme for the productive forces;
4. The composition of the executors (In the republics all types of long-range programs are produced mainly by the same people, primarily the economists, while engineers, designers, process engineers and architects should predominate, at least in the development of the comprehensive programs.);
5. The absence of feedback from the population distribution schemes to the development schemes.

Finally, there has been a certain reduction in the importance attached to them as a result of the great number of long-range programs, especially the development schemes.

There is no question that coordination in the development of the elements making up the long-range plan needs to be improved.

The Purpose and the Substance

First of all, let us attempt to provide a specific answer to the question: Why do we need long-range programs? Briefly, the answer is that we need them to make strategic decisions with respect to controlling the national economy, that is, in order to make decisions whose results will take shape only after a long period of time has elapsed, while at the same time entailing changes in the branch and territorial structure of the national economy.

We believe that there are three main types of such problems. First of all, there are the problems involved in formulating and developing ways to implement large social programs (improvement of the standard of living and the way of life, measures having to do with health protection, education and culture, and so forth). These tasks frequently involve a decision as to whether it is to be "greater quantity or better quality," that is, the resolution of important qualitative problems. The second group of problems stem from objective circumstances (environmental protection, the study of supplies of natural resources, "public orders" for science, engineering and technology, in order to achieve the goals in the first group, not to mention the "purely" economic tasks involved in the production of a certain quantity of this or that type of product). In the third group are the forecasts for science and technology, which emerge from the natural pattern of their own development, that is, problems not of the nature of "public orders."

Before moving on to cite a few examples of long-range problems, I would like to stress the fact that most of them are of a dual nature, that is, their resolution must take into account quantitative and qualitative changes for both consumption and production.

Let us consider a few specific problems. The republic press has printed a number of articles demonstrating that with better feeds we could obtain more milk, while reducing the total herd and simultaneously increasing the average herd age to the optimal, that is, by almost 2-fold. If this assumption proves to be true, this will drastically reduce the need for cattle tenders, milkers and so forth. This is one aspect of the problem. By increasing the yield of the grasses produced for feed, thereby improving the composition of the feed, we could feed even more cows than we now have. This, in turn, however, would require a different composition of resources.

With respect to the Food Program, it should be stated that even here the problem is not so much one of increasing output as of enlarging the assortment of food products and consuming them in a reasonable manner. The medical experts have more than once pointed out the fact that a significant portion of the population is overweight. This is found even in the schoolchildren. It takes a long time to effect the appropriate measures, however, with respect to both consumption and production. There is no question that with respect to problems of power engineering, in addition to selecting the ratio of prospective technologies, we need to increase our attention to heat losses (increasing the heat-transfer resistance of outside walls and ceilings of buildings, for example, and consequently, setting up production of the necessary materials, switching to triple-layer glass in areas where this will produce the desired effect, which means increasing glass production, and so forth). The average distance of rail shipments now exceeds 900 kilometers for the nation as a whole, and the number of drivers in the Estonian SSR is approaching the number of agricultural workers. These figures indicate that transport is a strategic problem. We should devote our attention to shortening the hauls (with the efficient distribution of production), to the structure of the different types of transport and to the enhancement of its technological level.

Here are a few examples of long-range problems from the social field. The republic knows from sad experience what has resulted from the excessive consolidation of general educational schools by eliminating the small rural schools. This has been one of the causes of losses of agricultural workers. The resolution of this problem (and perhaps also the problems of organizing and distributing personal service enterprises and pre-school facilities) has to affect the rayon planning patterns. Here is one more example from the same field. Teachers and doctors have recently been talking about the importance of bodily contact between the child and its mother for the first 3 years of its life. If this problem is successfully resolved, there may be a drastic reduction in the need for nurseries. Naturally, some serious studies need to be made in this area, including financial (a comparison of the cost of building and maintaining nurseries with the cost of partial compensation for the wages which would be lost by the mothers) and sociological (a study of the population's views on this matter). Should we insist so firmly on the formula $n+1$, that is, the requirement that there be a separate room for each family member plus one common room, in the long-range calculations? It seems to us that right now, when there is less than one room per person in the nation as a whole, it would be more sensible to adhere to the standard of one room per person for the immediate future. With the funds saved by doing this we could make the housing more convenient, improve the soundproofing and the mechanization of housework, and assure excellent construction (long-lasting paints for the exteriors, high-quality wallpaper and plumbing, minimal losses of heat through windows, and so forth). These funds could also be used to accelerate the major repair of housing and to eliminate the lag which has developed in this area. We should include the conversion from high-rise construction in the rural areas to the construction of buildings for one or two families, with private plots.

The nature of the problems mentioned above, the resolution of which requires long-range measures and sometimes, a search for ways to resolve them, points us towards one basic conclusion. This conclusion is that effective control of the socialist national economy and the establishment of new directions for its development can only be accomplished with long-range planning.

We believe that long-range planning includes the following tasks.

1. The formulation of long-range problems and the indication of ways to resolve them;
2. The compilation of balances for all the basic types of resources and products, since all of the problems are interrelated at the long-range level, as they are at any other level;
3. Provision of the plans with information covering shorter periods of time, and not in the form of alternatives but as specific solutions.

Finally, I would like to say that we need to strictly follow V.I. Lenin's precept "better less, but better" in all these matters. After all, our future is no longer a matter so much of quantitative as of qualitative indices. Furthermore, in many cases the observance of this principle will mean the intensification of production and the enhancement of production effectiveness.

In addition to these general tasks of long-range planning, I would like to note two more tasks, vitally important in the current economic situation.

4. The first matter is that of enhancing effectiveness in the national economy by intensifying production. In this process social tasks must prevail over the economic accountability interests of the branches and enterprises. The incentive system for the latter must be altered in the interest of achieving the social goals. The well-known disagreements between the housing construction combines and the architects is an example of this. The basis for evaluating the performance of the housing construction combines should not be the number of square meters of housing built but the enlarged variety of construction and the improved quality of the housing. The above-mentioned situation with the schools is another example. Although it costs more to maintain rural schools, national economic interests sometimes demand that they be preserved.

5. The thorough coordination of long-range programs is another problem. We have the possibilities, especially the production capacities, for medium-range planning, for example, but in long-range planning all production links must be taken into account in advance, to prevent some of them from being disrupted in the future because of departmental barriers or for other reasons.

What is the uniqueness of the long-range plan? It has to do in part with what we have said above. One of the main features--and we consider it to be the most important--is the intensification of its special focus, compared with plans of shorter duration. Logically then, in our opinion, the second feature would be the variability of the main strategic tasks in the long-range plan. And each version should be followed through to the end. That is, it should be provided with the basis resources. Furthermore, all of the problems and the measures designed to resolve them should be presented in various stages of readiness--from their formulation to the assignment for beginning the construction of a certain plant. This includes the halting of production of any sort of product which proves to be ineffective in the immediate or the distant future.

It follows from the logic of the hierarchic systems that as we move down the levels of control, the more detailed becomes the plan. Since the number of levels depends upon the size of the republic, a small republic should have a more detailed plan than a large republic, and the plan for the large republic should be more detailed than that of the nation as a whole. At the same time, the republic plan for any branch or complex must conform to the corresponding directions for development on the Union scale, while simultaneously taking local conditions into account. That is, it must be a constituent, coordinated element of the republic's long-range plan. If by this we mean the republic's comprehensive program for scientific and technological progress, then it must include programs for the development of only those branches of the complexes which operate within the given republic, while for the other branch complexes being limited to indicating its claims on those complexes and its need for their products.

Unresolved Questions

Since the method and the objective comprise a dialectical unity, we have already discussed many methodological and organizational problems in our presentation of

certain problems which are the targets of long-range planning. We shall now attempt to define somewhat more specifically possible ways of resolving them and to raise certain new problems. First of all, let us briefly review what we have already mentioned: coordination of the development of various long-range programs in order to avoid duplication and to assure that they are realistic, the need for a varied approach and finally, the coordination of production and population distribution schemes. In our opinion, the latter is one of the main measures for the coordination of branch and territorial planning.

We share the opinion that the rough figures for the long-range plan should be backed up with more detailed calculations. The system of tasks and calculations for the long-range plan should conform to this demand. Considering also the relatively extensive freedom of selection, the long-range plan should be compiled in several stages. More or less realistic, interval indices for the social and economic goals would be determined by means of rough balance calculations in the first stage, in order to make detailed calculations in subsequent stages and recommend measures for their achievement. Clearly, the indices for the first and subsequent stages should be aggregated, since we are dealing with a long-range plan. It is perfectly natural that there will be a question as to the extent to which they should be consolidated. Or more specifically, what the indices for the long-range plan should be and how many there should be.

We need to point out that a study of certain problems determining the substance of the long-range planning system gave us little concrete information on this matter. We learned the substance of a long-range plan in very general terms, but we did not learn the degree to which the details should be worked out in the various stages of the plan's development.

It seems to us that we have arrived at a basic question. The question is whether the problem of optimum degree of detail in indices for the planning system actually exists. The same question at the level of economic planning tasks could be worded thusly: Should we seek their optimum extent and optimum degree of detail for their indices or should we adhere to the principle "the more, the better"? The substance of this problem pertains primarily to the list of products and resources, since they are the main limitations in the setting of any economic planning task.

Let us first consider this problem from the standpoint of the separate economic planning tasks. It is our opinion that too little attention is given to this matter, especially in the long-range planning. The reason is to be found in the fact that the unfocused plan came into being only recently as a long-range plan, and planning which needs to be focused was automatically shifted to this category. The list of products and resources in this case is established by the imperical method. It would be appropriate to point out that the determination of the optimal line of delineation between centralized planning and production regulation by means of a price system is a dynamic task, that it is accomplished in different ways in the various stages of development of the socialist national economy. We still feel that the price system will play an even more important role in the future, and this will entail a reduction in the list of products planned for production.

There are the following arguments for considering that there is indeed a problem with respect to the optimal size of economic planning tasks. We would mention first of all the quality consideration. An economic planning task worked out with an electronic computer should not be enlarged to the point that it becomes boundless. In such a case it is impossible to perform a logical study of the result, and when we ask how this result was obtained, we receive the senseless answer: "That's the way it came out." Furthermore, the excessive size of the tasks entails certain quantitatively measurable losses. In the first place, there is an increase in the amount of work and the cost involved in collecting the more detailed basic information. In the second place, there is an increase in the number of errors in the calculations and their accumulation. In the third place, there is an increase in the number of errors and the amount of work involved in feeding the base information into the computer. All of these losses should be measured against the effect from making the calculations more detailed. Naturally, we should not forget the fact that the bottom line for the size of any task is the informational requirements of the other planning systems.

The size of an assigned economic planning task can be reduced by two methods: 1. By breaking it down into systems of smaller tasks; 2. By aggregating the lists of products and resources.

No special proof is needed to show that everything said about the optimal detail for the economic planning tasks pertains also to a significant degree to the planning system for the nation as a whole, especially the list of products and resources used in it.

There is yet another problem of a methodological nature. This problem has to do with the optimum number of versions and the nature of their distinguishing features. We believe that this problem has also not yet been resolved. Quantitative characteristics are used for compiling the production schemes and comprehensive programs. These include, as an example, such characteristics as the maximum and minimum growth rates for the public product, from which the corresponding indices are derived for the branches and their complexes. We feel that it would be justified to calculate several more pairs of versions differing with respect to qualitative characteristics, level of development of the equipment, the branch structure of the national economy, the distribution of the national income for consumption and accumulation, and so forth. The development of these versions makes up the second stage in the development of a long-range plan (the first stage was discussed above), and this stage is the most labor-consuming. After the group of versions is discussed in the agency for developing the long-range plan (the third stage) a draft plan is drawn up (fourth stage), which has only two or three alternate sets of indices for the end of the period but unified indices for the period of development of the basic directions, that is, for the first 10 years.

We stated above that there is no feedback from the population distribution schemes to the production schemes. This means that the distribution of new enterprises is frequently determined in isolation, and a shortage of capacities later develops for both the production and the nonproduction infrastructure. In our opinion, the problem could be resolved by compiling general plans for the cities

based on various "capacities" (the size of the population, need for natural resources, services, and so forth) with calculations for the cost of each alternative plan for the city's development, as described in [5]. The problem of the large conglomerates has become so pressing that the matter of performing forecasts of their development for periods of 30 to 50 years has already been brought up [6, p. 66].

Up to this point we have been talking about the national level. We feel that we would be justified to limit ourselves in the long-range plans to the level of the branches and their complexes, that is, not to go down to the level of the associations and enterprises. One of the basic postulates for working out alternative plans for the development of the branch complexes and the branches is that they must be made up for both consumption (the level of convenience and comfort, for example, the composition of livestock feeds, and so forth) and for production (production technology, types of transport, and so forth).

The process of working out the alternative plans for branch development (second stage) in its general form consists of seven forecasts and calculations, shown in Diagram 2. We believe that the logic underlying the sequence of the processes is fairly simple and requires only a few comments. In the first place, it can be stated that the production structure in this case means the list of the basic types of branch products, coordinated with demand. This is indicated by the reciprocal information flows between the top blocks. In the second place, and we consider this to be the most important thing, we absolutely must work out the specific consumption of resources for the basic types, in order to have materials ready for the alternatives differing in volumetric indices assigned from the center. In the third place, it is mainly the planners and economists who work out the alternate plans. The technical specialists (scientists, design engineers, process engineers and project engineers) are responsible for the results of the third stage of the work, but they take part in the second stage as well. They are enormously important, since they propose the alternative technical plans for future production.

In principle Diagram 2 is also suitable for developing the long-range plans for the branch complex. This is discussed in greater detail, as the "entering" of the plan for the branch complex into the long-range national economic plan, using the example of the construction complex, in [3].

The last group of questions discussed in our article are organizational ones.

We have stated more than once in this article that we need to seek ways to improve the coordination of the various long-range plans and studies. This applies first of all to those "currents" (production schemes, population distribution schemes and complex programs for scientific and technological progress) mentioned above, as well as the endogenous and exogenous links between the branches and their complexes.

We can ask two questions regarding this. First, does it make sense to develop separate programs for the development of the economy (schemes for the development and distribution of the productive forces) and the equipment (comprehensive

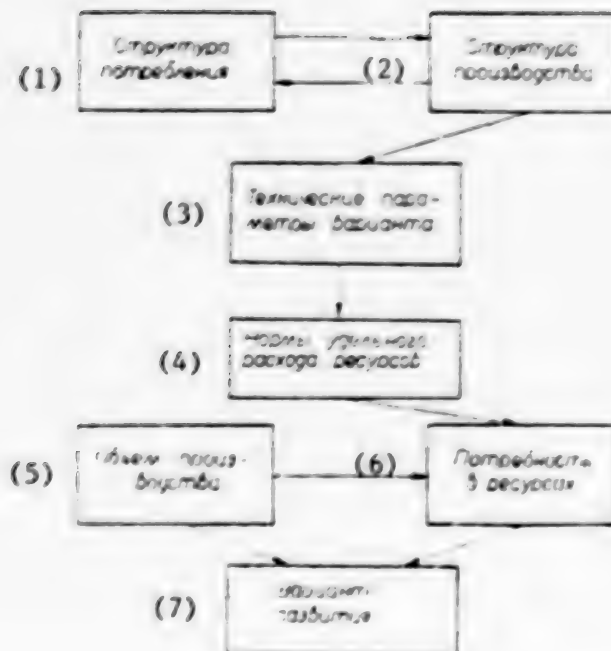


Diagram 2

Key:

- | | |
|---|----------------------------|
| 1. Consumption Structure | 5. Production Volume |
| 2. Production Structure | 6. Need for Resources |
| 3. Technical Parameters of
Given Alternative | 7. Development Alternative |
| 4. Specific Resource Consumption
Norms | |

programs)? The second question is whether it is worthwhile to make up two long-range programs—one for 15 years, the other for 20 years. They embrace the entire national economy, after all, and therefore duplicate each other in many respects.

In the organizational respect the nucleus of the problems involved in long-range planning therefore consists in combining economic, social, technological and territorial planning. It would seem that we must create a planning system (but not necessarily a new department) to coordinate and synthesize the studies for programs of development for all aspects of the national economy and assure that they are constantly adjusted as needed. In our opinion, such a system (both for the nation as a whole and for the individual republics) should have three levels of control: 1. the center; 2. the "currents"; 3. the branches and their complexes.

The center would have the following tasks: 1. to make the preliminary rough calculations defining the basic social and economic tasks (first stage); 2. to select certain main alternatives out of the many possibilities (third stage) and define the main directions for making up the draft alternative plan (fourth stage). The task at the two lower levels requires the most work: to develop the different alternatives (second stage), to make up the final draft plan (fourth

stage) and provide for constant adjustment of the long-range developments. We would thus have reliable material available when it comes time to make up the next long-range plan. This function--that of retaining a current information base as the nucleus of long-range planning at all levels--seems especially important to us. We see this as the way to convert the process of long-range planning to a qualitatively higher level, that is, from occasional to systematic functioning, with permanent cadres.

As we have stated above, the basic calculations and forecasts would be retained at the level of the branches and their complexes. Composite documentation in the form of a draft plan would be submitted to the center and from there, after it has been approved, to Gosplan.

As we complete our survey, we must admit that there are still many "blank spaces" in the theory of long-range planning for economic and social development, and consequently, possibilities for making appropriate methodological improvements. First of all, I would like to stress the enormous role of the development of alternatives for scientific and technological progress as the main force behind the development of the materials and equipment base for the national economy. The question of how to achieve the goal set for the national economy is actually the first problem to be resolved. The study and development of measures pertaining to consumption is no less important.

We feel that the achievement of a unified, balanced planning document describing the technical, the economic and the territorial development of the national economy over the long range is an exceptionally important task at the present time.

In conclusion, I would to say that the author clearly understands the speculative and debatable nature of these ideas. He considers them, as well as other statements on these problems, to be valid in the current situation, however.

BIBLIOGRAPHY

1. Kas'k, K.A., "Otraslevoy kompleks v sisteme perspektivnogo planirovaniya narodnogo khozyaystva"[The Branch Complex Within the System of Long-Range Planning of the National Economy], Tallin, 1983.
2. Kishenko, Ye.D. and Meleshenko, V.I., "Teoreticheskiye i metodicheskiye voprosy regional'nykh predplanovykh issledovaniy"[Theoretical and Methodological Questions of Regional Preplan Studies], Leningrad, 1981.
3. Litvyakov, P.P., "Ekonomicheskaya sistema sotsializma i planirovaniye"[Socialism's Economic System and Planning], Moscow, 1975.
4. "Metodicheskiye ukazaniya k razrabotke gosudarstvennykh planov ekonomicheskogo i sotsial'nogo razvitiya SSSR"[Methodological Instructions for Developing State Plans for the Economic and Social Development of the USSR, Moscow, 1980.
5. Kas'k, K.A., "Preplan Population Distribution Studies and Their Interrelationship with the Development of Production" in PLANOVoye KHOZYAYSTVO, No. 5, 1981, pp. 112-116.

6. "Otraslevyye i territorial'nyye faktory povysheniya effektivnosti proizvodstva"[Branch and Territorial Factors in the Enhancement of Production Effectiveness], Leningrad, 1981.

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INVESTMENT, PRICES, BUDGET AND FINANCE

FORECASTING METHODS USED IN USSR GOSBANK AUTOMATED CONTROL SYSTEM

Moscow DEN'GI I KREDIT in Russian No 4, Apr 83 pp 69-74

[Article by V. S. Kabanyayeva and A. F. Litvinenko, candidates of economic sciences: "Forecasting Methods Used by Gosbank's ASU"]

[Text] In the present stage of our country's development improvement of the methods of managing the economy and above all the most important part of management--planning--is becoming especially urgent. The Basic Directions for the Economic and Social Development of the USSR Over the Period of 1981-1985 and up to the Year 1990 emphasizes the need to improve the quality and effectiveness of the managerial effort in the context of present-day requirements.

The study of the mechanism of operation of economic processes is the point of departure of scientifically sound management of those processes. One of the directions making it possible to raise the level of scientific soundness of planning work is forecasting. Scientific forecasting is an inseparable part of planning, one which consists of preplan workups (razrabotki), in which an analysis is made of information accumulated on the previous development of economic processes, and on that basis an estimation is made of possible directions of their development in the future.

The forecast's special place in the process of managing banking activity and the specific nature of the mathematical-economic methods used in its calculation led to separation of the forecasting functions to form an independent subsystem "Forecasting" in the USSR Gosbank ASU [computerized management system] which is being developed. The subsystem "Forecasting" provides for constructing a multivariant set of interrelated mathematical-economic models for short-term and medium-term forecasting of the indicators of banking activity and also the long-range forecasting of the principal indicators of the activity of USSR Gosbank. The multivariant nature of the calculations resulted from the differing hypotheses advanced concerning development of those economic factors by means of which the basic patterns of development of the indicator of banking study under investigation are expressed. Performing the computations in different variants guarantees greater scientific soundness of decisions made in various areas of banking activity on the basis of analysis of alternative pathways of development of specific processes, by taking into account the consequences of the differing versions of the decisions, and selection of the best on that basis. The subsystem "Forecasting" also makes it possible to perform the relevant forecasting computations on a computer.

The specific nature of forecasting the particular groups of indicators makes it necessary to distinguish sets of forecasting models related to credit, the circulation of money, payments traffic, and so on.

The basic functions of the subsystem "Forecasting" are to reveal the tendencies which have come about in the past in the development of the various indicators of banking activity, to conduct their mathematical analysis, to assess the effect of those tendencies in the future, and on that basis to define the possible variants of the given indicator's development.

Dynamic (time) series serve as the initial information for preparing a forecast, since it is in dynamic series that the tendency of an indicator's development is reflected. Consequently, the dynamic series makes it possible to analyze in detail the peculiarities of the indicator's development.

The process of constructing the set of mathematical-economic models in the relevant spheres of banking activity makes it necessary to proceed by the following stages: shaping the system of indicators to be forecast and gathering the necessary information concerning them, i.e., constructing the dynamic series; conducting detailed analysis of the initial dynamic series, i.e., their preliminary processing; conducting experimental research in order to select the mathematical-economic method for preparing the forecast; constructing the mathematical-economic model of the forecast, its economic interpretation, performance of computations it involves, and analysis of the results obtained.

The units "Mathematical Capability," "Information and Method Support," and "Functional" are distinguished within the system "Forecasting" for performance of these functions.

The subsystem's mathematical capability consists of systemwide and special software. The systemwide software represents a set of programs designed for organizing and checking the process of computation and for automating the laborious processes involved in working out programs.

The special software is a set of programs used to carry out the stages of constructing the model which have been enumerated; they make up an application package called "Forecast." Depending on the purpose for which they are to be used the programs can be divided among the following basic groups: analysis of dynamic series, building single-factor models, building multiple-factor models.

A possible grouping of programs by purpose is given in Figure 1.

The analysis of dynamic series is done in order to use in the calculations quality initial data on which the accuracy of the forecast largely depends. A series of programs is used for preliminary analysis. The program "Determination of the Basic Characteristics of the Dynamic Series" is used for initial analysis of the time series. It makes it possible to make calculations of the average value of the series, of the possible error of the arithmetic average, the mean square deviation, coefficients of asymmetry and excess, the autocorrelation coefficient, and other indicators.

Correlation analysis is done by means of the program "Computation of the Correlation Coefficient," which also makes it possible to obtain the regression equation. By means of the program "Elimination of Untypical Values in the Dynamic Series" an element untypical of the dynamic series being studied is identified, it is interpreted as random, and a new corrective element is calculated to replace it.

In the forecasting of bank indicators one sometimes deals with time series in which data are missing. The respective program is used to fill in these "gaps" in the dynamic series.

Thus the programs of this group provide for varied detailed analysis of the series under study to be conducted.

After the series is analyzed, experimental investigations are conducted in order to build a mathematical-economic model of the forecast.

At the present time the KPP [application package] "Forecast" makes it possible to build two mutually complementary types of forecast models--trend and correlation-regression models, mainly trend models, and sometimes correlation-regression models, being built for single-factor models, and exclusively correlation-regression models for multiple-factor models.

Use of these two types of models results from the fact that most economic processes develop with a certain share of inertia, i.e., the general tendency in development of the indicator persists in time (which is described by the trend models), and consequently, the interrelationship of the indicator being forecast with its determining factors persists (which is described by the correlation-regression models).

On the basis of the trend models those bank indicators are forecast in whose development a definite tendency is observed. Trend models make it possible to obtain the general direction of the change in time of the bank indicator being studied, i.e., offer as it were preliminary data for the future.

The development of individual banking indicators has a very pronounced seasonal and cyclical character. That is why the methods used to construct the trend models of the forecast are divided into two types--ignoring the seasonal component and taking it into account.

The presence of a set of programs for realizing the one or the other model resulted from the fact that the programs make it possible with a differing degree of accuracy to take into account the character of the seasonality--its periodic pattern, scale, and so on.

Forecast values for indicators which do not have sizable seasonal cyclical fluctuations can be obtained by using the set of programs: "Calculation of the Approximating Polynomial by Chebyshev Method," "Selection of the Type of Trend From the Averages," "Forecasting With Unidimensional Dynamic Series," and so on.

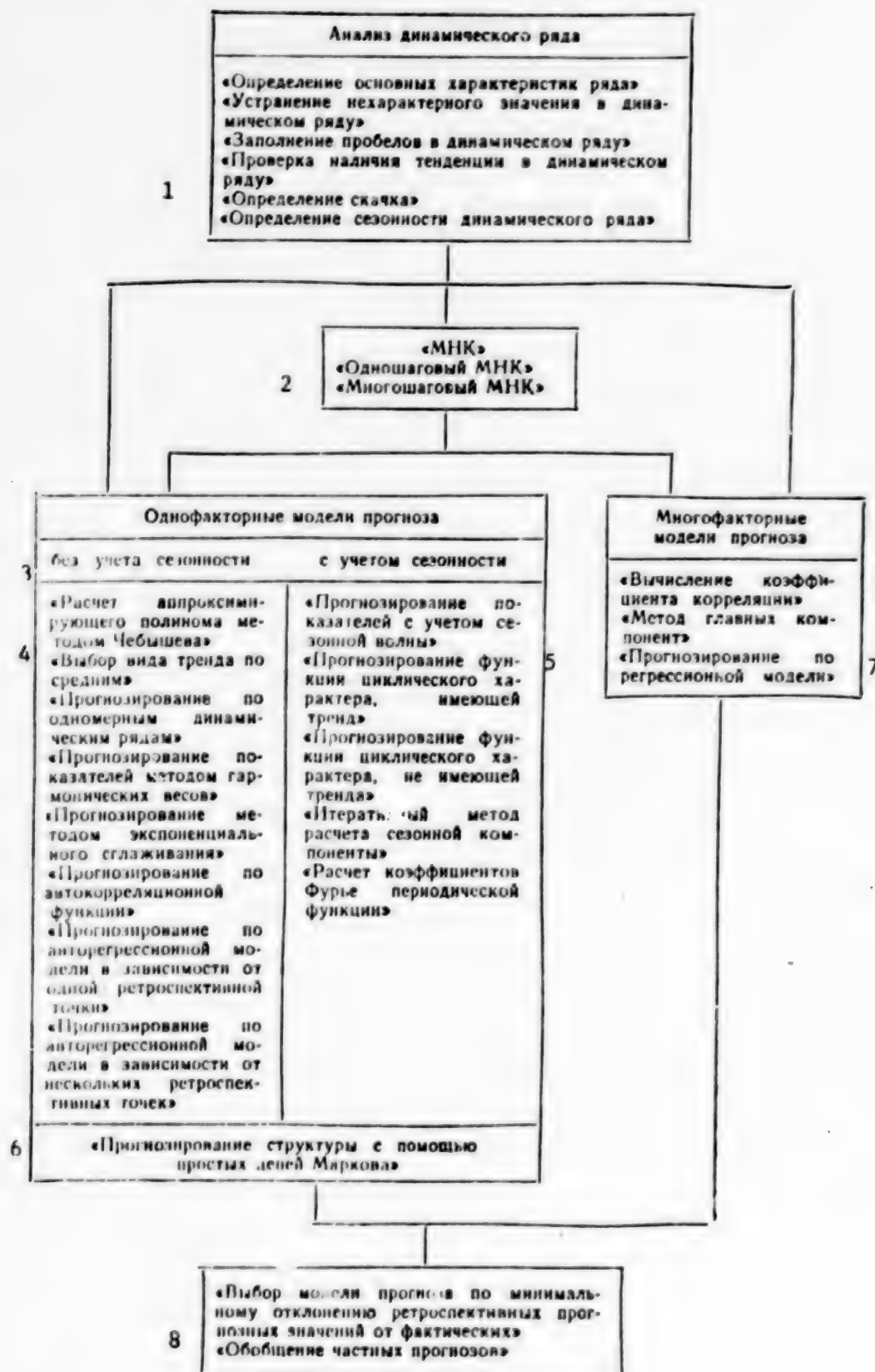


Figure 1

Key to Figure 1:

1. Analysis of dynamic series: "Determination of the Principal Characteristics of the Series"; "Elimination of the Untypical Value in the Dynamic Series"; "Filling in the Gaps in the Dynamic Series"; "Checking the Existence of a Tendency in the Dynamic Series"; "Determination of a Discontinuity"; "Determination of the Seasonality of the Dynamic Series"
2. "Method of Least Squares"; "Single-Stage Method of Least Squares"; "Multiple-Stage Method of Least Squares"
3. Single-factor forecast models
4. Ignoring seasonality: "Calculation of the Approximating Polynomial by Chebyshev's (Tchebycheff's) Method"; "Selection of the Type of Trend From the Averages"; "Forecasting With Unidimensional Dynamic Series"; "Forecasting Indicators by the Method of Harmonic Weights"; "Forecasting by the Method of Exponential Smoothing"; "Forecasting With an Autocorrelation Function"; "Forecasting With an Autoregression Model Depending on One Retrospective Point"; "Forecasting With an Autoregression Model Depending on Several Retrospective Points"
5. Taking seasonality into account: "Forecasting Indicators Taking Into Account the Seasonal Wave"; "Forecasting a Cyclical Function Which Has a Trend"; "Forecasting a Cyclical Function Which Does Not Have a Trend"; "The Iterative Method of Calculating the Seasonal Component"; "Calculation of Fourier Coefficients of a Periodic Function"
6. "Forecasting Structure by Means of Simple Markov (Markoff) Chains"
7. Multiple-factor forecast models: "Computation of the Correlation Coefficient"; "Method of the Main Components"; "Forecasting With a Regression Model"
8. "Selection of the Forecast Model With Respect to Minimum Deviation of the Respective Forecast Values From the Actual Ones"; "Generalization of Partial Forecasts"

The programs "Forecasting Indicators by the Method of Harmonic Weights" and "Forecasting by the Method of Exponential Smoothing" have come to be used rather widely. These methods are used in cases when the future tendency in development of the indicator is determined mainly by the last several values of its dynamic series.

The programs "Method of Least Squares (MNK)," "Single-Stage MNK," and "Multiple-Stage MNK" occupy a special place in the KPP "Forecast." These programs can be used both to build single-factor and also multiple-factor forecast models. The programs make it possible to determine the parameters of the particular approximating function (i.e., that equation which best describes the process being studied), to smooth the dynamic series (i.e., determine the tendency in development of the indicator, its trend), and so on.

The correlation-regression models are built to forecast economic indicators so as to take into account the influence of various factors on their development. Models of this type afford a deeper understanding of the causes of particular phenomena in economics and make it possible to identify the basic patterns as well as the phenomena of a random nature. The models afford the possibility of determining the level and direction of the influence on the indicator being forecast of factors included in the model.

The first stage of the process of building a multiple-factor model is to select the economic factors which it is advisable to include in the equation of the model. Aside from the program indicated above "Computation of the Correlation Coefficient" the program "Method of the Main Components" is also used to determine the set of factors.

Multiple-factor forecast models of banking indicators are realized by means of the program "Forecasting With a Regression Model." The peculiarity of this program is that it makes it possible to eliminate inessential factors from the model.

The existence of a set of programs makes it possible to obtain forecast values of one and the same indicator of banking activity by several methods. In this case it is indispensable to choose that forecast model which best describes the economic indicator being studied. The program "Generalization of Partial Forecasts" is used for this purpose; it summarizes the results of computation of forecasts obtained by different methods by attributing certain weights to the results depending on the covariance of the deviations of the forecasts from the respective actual values.

Composition of the KPP "Forecast" is not yet complete. The package is continuing to grow.

The software of the subsystem "Forecasting" is intended for organizing the collection, storage, accumulation and updating of information used to solve problems and also to exchange information between problems within the subsystem, to establish relations with the problems of other subsystems of Gosbank ASU and external ASU's. It consists of two parts--files of data used for forecasting bank activity and a system of routines for working with the files, expanding the capabilities of the operating system used.

The initial information used in the subsystem "Forecasting" consists of both intrasystem information (results of solving the problems of the subsystems "Statistical Reporting," "Management of Payments," and so on), as well as external information (indicators of the activity of various ministries, departments, and so on).

The files of data are on external carriers which provide for recording of the data for making up the system of dynamic series of the indicators being forecast and the factors influencing them, long-term storage of these data, and minimum time for recording, retrieval and reading the information. In the organization of the files an effort is made to achieve simplicity in checking the correctness of the entering of the data and in making changes.

The output information of the subsystem consists of forecast values of the indicators of bank activity. The software of the subsystem provides for working out a method of preparing different types of forecasts. In the first stage of creating the subsystem "Forecasting" it is assumed that trend and correlation-regression mathematical-economic models will be built.

For each type of model a block diagram of their construction is worked out showing the specific mathematical methods which it is best to use to realize the individual blocks. It is accordingly necessary to systematize the methods of forecasting in order to work out practical recommendations for use of a particular method and also to conduct comparative analysis of the different methods.

Provision is also being made for working out a method of determining the reliability and permissibility of the limits of the forecast. Each forecasting computation must be accompanied by a determination of the confidence interval for it and the necessary characteristics of the quality of the forecast.

The functions of the software also include organizing the performance of forecasting computations on computers, the drafting of instructional materials for training supervisory personnel to work under the conditions of the ASU's operation.

The building of specific mathematical-economic forecast models for various spheres of bank activity so as to take into account their specific nature, the forecasting of specific indicators, and also the performance of forecast calculations on computers are provided for in the functional block of the subsystem "Forecasting."

Taking into account the specific nature of forecasting indicators of various spheres of bank activity makes it necessary to identify subblocks for forming and performing the respective mathematical-economic models, for example, the subblock for forecasting credit, the circulation of money, and so on.

The subblock for forecasting credit provides for forecasting the volume of resources for credit financing and types of credit purpose at various levels of the hierarchy of the Gosbank system. Resources for credit financing will be forecast at the republic level and for the national economy as a whole. Investments financed with credit are to be forecast for the national economy as a whole, for sectors and branches, for projects receiving credit financing, and in various regional breakdowns.

As an example of the tasks of this subblock we will examine one of the problems of the subsystem "Forecasting" being run at the present time--"Building Multiple-Factor Forecast Models of Investments Financed With Credit and Resources for Credit Financing at the Level of the Gosbank Board."

Forecast values in this problem are being calculated for 13 categories of resources for credit financing and types of credit purposes (credit financing--total, credit financing of industry, credit financing of agriculture, loans secured by merchandise and supplies in industry, loans secured by merchandise and supplies in agriculture, loans secured by merchandise in retail trade, and so on). In addition, there are 14 indicators of factors involved in the computation (proceeds from sale of the output of industrial enterprises, profit of industrial enterprises, production stocks in agriculture, outlays in cropping, and so on).

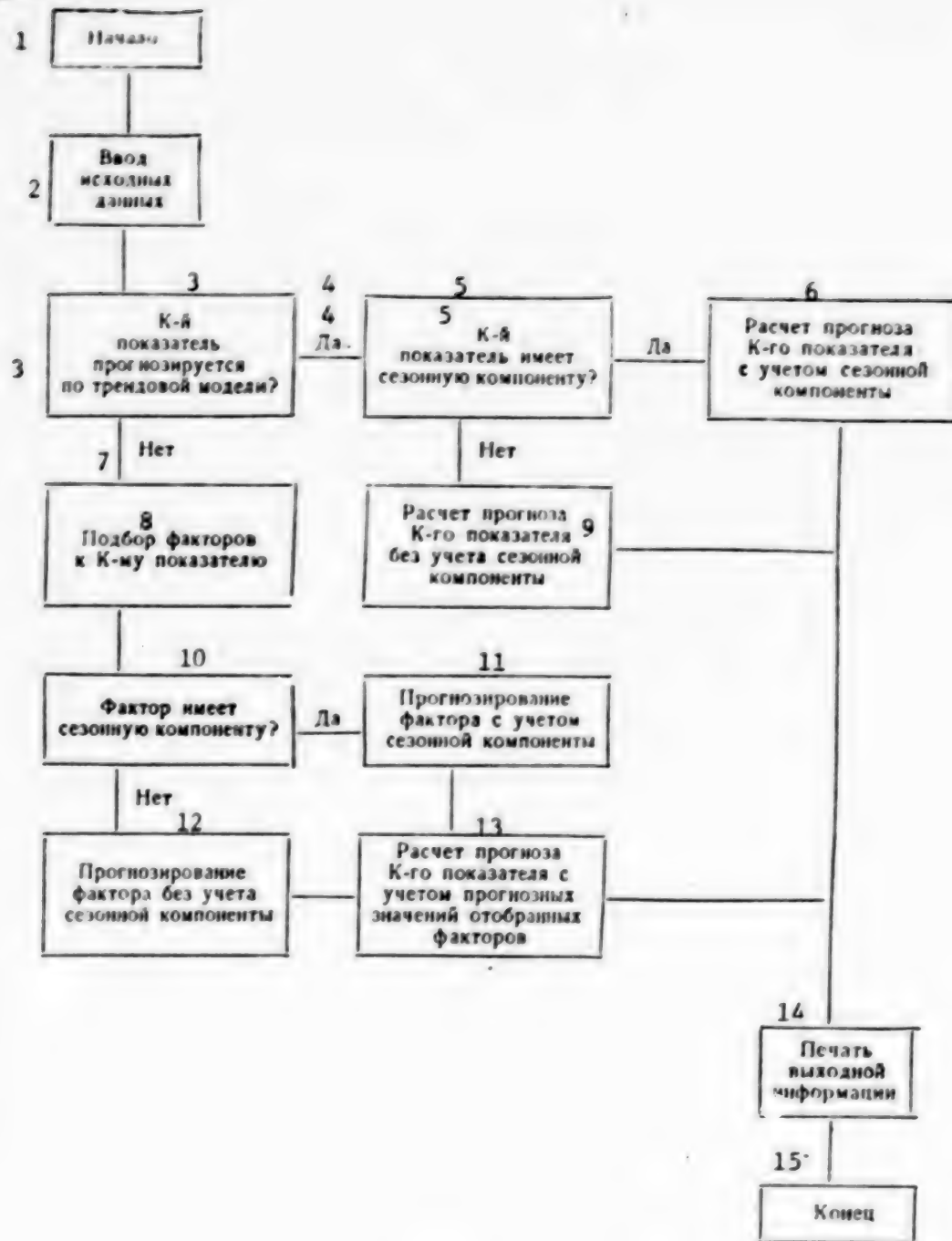


Figure 2

- Key:
1. Begin
 2. Input of initial data
 3. Is the indicator K being forecast with a trend model?
 4. Yes
 5. Does the indicator K have a seasonal component?
 6. Calculation of the forecast of the indicator K so as to take into account the seasonal component

Key (continued)

7. No
8. Selection of the factors relevant to the indicator K
9. Calculation of the forecast of the indicator K ignoring the seasonal component
10. Does the factor have a seasonal component?
11. Forecasting the factor so as to take into account the seasonal component
12. Forecasting the factor ignoring the seasonal component
13. Calculating the forecast of the indicator K so as to take into account the forecast values of the factors chosen
14. Print the output information
15. Stop

The forecast values of resources for credit financing and types of credit purpose are calculated using multiple-factor regression forecasting models. The forecast values of the economic factors influencing the resources for credit financing or purposes of credit financing are calculated using trend models. If it has been ascertained that seasonality is inherent in a given economic process, then this is taken into account in calculating the forecast.

The forecast is calculated quarterly according to the following procedure: retrospective forecasts covering 4 years are computed by various functions; a determination is made as to which function best describes the economic process (on the basis of the minimum percentage of deviation of the calculated forecast values from the actual data); and a forecast is calculated with the approximating function chosen.

The consolidated block diagram of the algorithm for computation is given in Figure 2.

The input information of the problem is the intrasystem information--reported statistical data on actual indebtedness under short-term Gosbank loans and actual data on resources for credit financing (Gosbank's balance) as of quarterly dates beginning with 1972. Corresponding data on economic factors are used to build the factor forecast. By and large this is external information--report data of the USSR Central Statistical Administration, the USSR Ministry of Agriculture, the USSR Ministry of Trade, and so on.

The sum total of all the information used for the particular type of forecast of a particular indicator constitutes a file consisting of a dynamic series of the indicator being forecast itself and the dynamic series of economic factors.

The forecast values of credit placements, resources for credit financing and the forecast values of factors included in multiple-factor models are the output information of the problem. In addition, equations with which the forecast has been made are read out as output information.

When forecasts are calculated with trend and regression models a point-by-point prognostic estimate is obtained, which is sometimes not enough. In calculating forecasts in the future, then, provision is made to determine the

confidence interval, i.e., the domain of possible values in which the values of the indicator will fall with a given probability.

The results of solving forecast problems can be used to study the character of tendencies in the development of indicators, to study the factors determining them and for comparative analysis of the tendencies; for meaningful and quantitative analysis of the influence of factors included in the model on the banking indicator being studied; to estimate the level of certain indicators during analysis of fulfillment of Gosbank plans; and as a reference in determining the planned values of the indicator, and so on.

An analysis of the size of the confidence interval makes it possible to estimate the level of reliability of the point-by-point forecast values. The smaller the size of the confidence interval, the greater the probability that in future an actual value of the output indicator will turn out to be close to the forecast value, and the more important the forecast value as a reference in the initial stage of planning.

The character of the tendency in development of the indicator is evaluated first of all from the standpoint of whether it is decreasing or increasing, and then on the basis of an analysis of the economic content (interpretation) of the parameters of the model. Should the indicators be forecast on the basis of multiple-factor models, the patterns of their development are evaluated by analyzing changes in a comparison with a past period of the strength and direction of the influence on it of economic factors and the time factor and by analyzing tendencies in the development of the factors.

A study is also made of the combined influence of the factors on the output indicator, which makes it possible to analyze the dynamic change of the model. The results of solving the forecasting problems can be used by economists as additional materials for performing planning operations, in analyzing progress in plan fulfillment, and so on. This will undoubtedly tend to raise the level of management of Gosbank activity.

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INVESTMENT, PRICES, BUDGET AND FINANCE

CAPITAL EQUIPMENT REPAIR PROBLEMS ANALYZED

Moscow PLANOVOYE KHOZYAYSTVO in Russian No 7, Jul 83 pp 12-18

[Article by V. Krasovskiy, doctor of economic sciences and professor: "Intensification of the Economy and Capital Repair Problems"]

[Text] The Basic Directions of Economic and Social Development of the USSR for 1981-1985 and the Period up to 1990 pointed out the necessity of improving the utilization of production capacities and fixed capital and of creating and applying progressive systems of organizing the repair and modernization of equipment, taking the peculiarities of individual sectors and industries into consideration.

If only the resources of accumulation and accordingly its effectiveness are considered in analyzing the factors of economic development, then simple reproduction may prove to be in the role of a passive element in economic dynamics. Meanwhile, intensification of the economy, linked with scientific and technical progress, concerns to an equal extent the processes of replacement, and in the field of investment, the renovation, modernization and repair of fixed capital and production capacities as well.

It is well known that in a number of capitalist countries the proportion of replacement in the composition of capital investments at times reaches 70 to 77 percent of their overall volume. In the Soviet Union, the proportion of capital investments carried out as simple reproduction, that is, at the cost of amortization funds, is much less, but in the extractive sectors of industry and agriculture it amounts to 40-60 percent and more. The proportion of replacement has become much higher in sectors of the nonproduction sphere as well.

Capital investments directed at the replacement of capital and capacities require specific material and technical guarantees, for they are linked with the substitution, renovation and repair of equipment in operation. At the same time, construction operations being carried out in connection with the replacement and repair of fixed capital also have their own peculiarities. They are carried out under conditions of constraint by the operating production facility and of diversity in types of equipment when there is a limited area for its installation and replacement.

As far back as the 1970's, expenditures for capital repair sometimes reached about 27 percent of the gross capital investments in physical production. In industry, up to 11 percent of all industrial workers, not counting machine operators in repair shops and workers in plants specializing in the manufacture of replacement parts, were employed in repair (capital and current). Until very recently, repair operations continued to increase. About 4 million tons of metal for the production of replacement parts have been in repair shops of enterprises and at repair plants.

In 1975, amortization deductions in the national economy amounted to 49.931 billion rubles, but in 1981 they amounted to 78.415 billion rubles, that is, they increased by 1.6 times as much. Assets allocated for capital repair increased in the same period from 21.046 billion rubles to 31.747 billion rubles, or 1.5 times as much. In 1981, the volume of capital investments in the national economy was equivalent to 138.8 billion rubles. With respect to it, the proportion of expenditures was 56 percent for amortization and 22.8 percent for capital repair.

Amortization deductions earmarked for full restoration of fixed capital are being used to the greatest extent for expansion of production, and not for the replacement of obsolete fixed capital. In 1980, the amortization deductions for renovation for industry as a whole exceeded the withdrawal of capital because of dilapidation and wear by 3.4 times as much, and by much more in individual sectors. Thus, in the USSR Ministry of the Petroleum Refining and Petrochemical Industry, the deductions for renovation exceeded the value of eliminated capital by 7.9 times as much; they were 6.9 times as much in the Ministry of Power and Electrification, 6.8 times as much in the Ministry of the Gas Industry, 4.5 times as much in the Ministry of Ferrous Metallurgy, 5.6 times as much in the Ministry of the Chemical Industry, 7.7 times as much in the Ministry of Power Machine Building, and 7.8 times as much in the Ministry of the Automotive Industry. The inadequate rates of replacement of obsolete fixed capital have led to an increase in the extent of depreciation of the fixed capital in industry from 30 percent in 1975 to 36 percent in 1980, and even more in a number of ministries. For example, by 42 percent in the USSR Ministry of Ferrous Metallurgy, and by 50 percent in the USSR Ministry of Petroleum Refining and Petrochemical Industry.

Surveys conducted by the USSR Stroybank [Bank for Financing Capital Investments] in 1981-1982 convince us of the need to improve the utilization of funds earmarked for capital repair of fixed assets in industry. Frequently after capital repair the initial technical-operational and economic indicators of the machines in use are not reestablished. The extended service life of machine tools, for example, is reduced by 10 to 15 percent and their productivity is reduced by 5 to 10 percent. The same surveys show that for certain types of machines and equipment, expenditures for capital repairs conducted over the entire period of their service significantly exceed the initial cost of this equipment.

The number of repair workers often is far in excess of the number of machines and equipment engaged in production. Vast physical resources are spent in restoration of the active part of the capital, as well as the buildings, structures and transportation facilities. More than a third of the country's inventory of machine tools have been occupied in the repair field.

Dispersion of the repair of the same type of equipment among thousands of consumer enterprises leads to an increase in expenditures, hinders the application of advanced engineering, technology and organization of a process, and gives rise to sharp differences in the cost and quality of repair of the same machines used by various consumers. At the same time, the production cost of repair in small shops and repair shops is usually two to three times higher and the quality is lower than under the conditions of specialized repair enterprises.

However, the circumstances cited do not mean that the repair service has lost its economic functions and is hindering improvement in the effectiveness of the country's fixed capital. As before, this service is fulfilling an important role in restoring physically worn out means of labor, averting their premature writeoff and thereby providing significant savings in metal and other materials (in comparison with the production of new machines). Moreover, in many directions repair production is being developed in an extensive manner. In connection with the insufficient volume of fixed capital replacement, the scope of capital repair exceeds an economically rational level, while often obsolete equipment is subjected to repeated repair, which is an obstacle to scientific and technical progress.

We will have to raise the technical level of repair production and the concentration and specialization of shops and services, to improve the provision of replacement parts and interchangeable subassemblies manufactured at specialized enterprises, and to develop subassembly, assembly, and other advanced forms of repair. All this will reduce expenditures for the repair of many types of equipment and increase its quality.

In connection with intensification of the economy, the problem of capital repair and the repair industry as a whole more and more urgently requires large-scale overall solutions for the technical reequipment of the country's fixed capital. National economic planning is faced with the increasingly acute problem of substantiating optimum proportions between the forms of reproduction of fixed capital and the development of capital-creating sectors, where specialized contracting organizations have been called upon to perform a large role in modernization of the production apparatus of enterprises in operation. More attention must be devoted to firm repair, to the development of capacities to manufacture replacement parts for the modernization of equipment, and to consolidation of the machinery base of repair enterprises. The volume of retirement and the extent of the resources directed annually for the replacement of retired fixed capital should become an objective of planning.

The Soviet economy, and industry in particular, long ago left that stage of development when the problem of replacement and maintenance of capacities could be considered secondary.

According to data cited at the All-Union Conference on Repair Problems in Ivano-Frankovsk (1982), the disrepair of 1 percent of the country's machine inventory causes the active part of fixed production capital to be out of service at a cost of 5 to 5.5 billion rubles. The problem of reestablishing capital has acquired particular urgency in the extractive sectors, including the coal industry. About 70 percent of the inventory of purifying machines [ochistnyye kombayny] and 40 to 50 percent of the mechanized roof supports and entry-driving machines are replaced annually at the cost of capital repair. These operations are being conducted at more than 100 repair and machinery plants for mining equipment. Up to 40 percent of the total number of workers who service the machines in operation are being diverted for the repair of essential mining machinery.

In ferrous metallurgy, expenditures for all types of repair operations in 1980 exceeded 1 billion rubles, and a large number of workers--over a third of the sector's industrial and production personnel--were engaged in them. At the present time, the capital repair fund in ferrous metallurgy has reached about 60 percent of the annual volume of capital investments. Financing of equipment modernization in this sector is implemented at the cost of funds allocated for repair. Thus, at the Metallurgical Plant imeni Il'ich, expenditures for modernization constituted 22.5 percent of the total outlays for capital repair and 48 percent of the funds for equipment repair.

The volume of expenditures for capital repairs in the oil-refining industry is systematically increasing. In recent years, three times less funds were directed at replacement of fixed capital in the sector mentioned than were necessary in accordance with the conditions of normal operation. In this connection, the depreciation of fixed capital has increased a great deal.

In contrast to the norm of amortization deductions for renovation, the norm of deductions for capital repair is differentiated by sectors, groups of enterprises, and even individual projects, depending on the design features and the operating conditions of the means of labor being utilized. The periods between current and capital repairs and grades of repair complexity have been defined for equipment, structures and other means of labor in all sectors of the national economy. Fixed standards for highly specialized groups of equipment also may be introduced in broader groups.

The moment usually comes when technical deterioration of a machine reaches the extent that only capital repair can extend its further operation. But the question then arises: should the machine mentioned be retained and funds spent for its repair, or should a new one or one with the same purpose, but more economical, be acquired and the old one turned in for scrap? While determination of the period between repairs is primarily a technical problem, the question of retaining the machine by means of repairing it is resolved on the basis of an economic calculation. Such problems also should be resolved on the scale of the national economy and its sectors with the aid of economic calculations.

In accordance with the standards for periods between repairs for the national economy as a whole, it may be established that the period between repairs for equipment is an average of 7 years, and one-seventh of it (by cost) is subject to capital repair every year. With corrections for an increase in fixed capital and its "regeneration," it is reduced, let us assume, to one-tenth. Consequently, it is required to determine whether one-twelfth or one-fifteenth of the capital will be turned in for repair and accordingly one-twentieth or one-thirtieth turned into scrap. In other words, economic calculation is needed to compare the advantageousness of repairs or replacement of the old capital with new capital.

The question may arise: why, despite economic calculations, when retention of old equipment requires large expenditures, do economic executives nevertheless give preference to the more expensive "repair" alternative? It appears that such obviously "uneconomical solutions," one would think, are explained by economic executives' uncertainty about the timely receipt of new equipment in exchange for the old machines sent for scrap.

National economic planning is confronted with the task of resolving this important investment problem in an organized manner and gradually. Restriction of the volume of capital repairs requires that their number with respect to machines and structures be reduced. It should be compulsory in nature, in the form of norms which have been set for the number of repairs authorized. It is important to direct attention to the number of types of machines for which restrictions are introduced and to the complexity of repairs, especially their consistency. Restrictions should be introduced last for large and complex machines.

Similar measures, in our view, should be combined with gradual development of firm repair and substantial increase in the output of replacement parts and components under plant conditions. Accordingly, the plans for technical re-equipment of enterprises and equipment modernization available at them should become more specific and well-founded. Reduction of capital repairs according to plan can be carried out only when, in the breakdowns of equipment (annual and for the five-year plan), the expansion of its deliveries for technical re-equipment of enterprises, as well as for replacement of obsolete and deteriorated means of labor, is regularly stipulated.

Advanced experience in the investment complex of the USSR attests to the diversity of methods of carrying out efficient technical reequipment and the best capital repair. It is necessary to consider differences in the mining sectors of industry, in agriculture, in production facilities of the apparatus type with large assemblies, and in sectors with especially rapid rates of model changes, technology and designs, and finally, in sectors which have at their disposal a large inventory of machines and transport facilities of one type.

In resources and number of personnel, capital repair now takes first place in the area of restoration of the country's fixed capital. It prevails over technical reequipping and replacement of the production apparatus of an operating enterprise in the sectors of physical production.

A question may be asked about the switching over of resources earmarked for capital repair for the most advanced and economical aims of capital investments--modernization and renovation of capital and capacities. The answer cannot be simple and concise. There is an imperative need to carry out efficient industrialization of capital repair based on the ever-expanding production of replacement parts and components at machine building plants, improving at the same time the technical maintenance of new equipment by machine builders. Under these conditions, the efficient concentration of available repair capacities and their specialization are possible. In the future, the two forms of repair and technical maintenance also may be merged. As a result of such integration, the labor resources now occupied in the vast network of small repair shops will be released significantly.

Such rationalization of the repair economy should be carried out energetically, according to plan, covering at first the sectors with a large quantity of equipment of the same type, and later those with complex technology and diversified mechanization as well. Sectors with a predominance of large integrated sets of machinery and apparatus systems, probably, will require the retention of a very efficient method of combining capital repair and modernization of equipment, and in a number of cases, repair and renovation.

In housing and municipal services, together with demolition of dilapidated buildings, efficient capital repair of valuable and durable structures may also be retained, but with obligatory modernization of their heat and water supply, sanitary engineering, telephone service, and so forth. With regard to the historically complex centers of old cities, which represent great architectural value, a cycle of full and overall restoration is required.

Researchers in the economics of capital repair correctly point out the unequal durability of assemblies, subassemblies and components of machinery, which gives rise to a natural demand for partial replacement of the deterioration in machines. To the extent that the durability of individual subassemblies of mechanisms approaches the same level, the need for capital repairs will be reduced, but a great deal depends here on the construction. Designers and producers often underestimate the importance of the indicator of the repair capacity of new equipment, although its reduction is advisable even as the price for a certain increase in expenditure in the production area.

All this emphasizes the need to bring closer the efforts of both the creators of the active part of fixed capital as well as the sectors utilizing the means of labor. When capital is created, the most economical conditions for operation should be considered, particularly the indicators of technical maintenance, repair capacity, reliability, and others.

At the same time, there are strict bans on the conduct of capital repairs. Repairs on machines which have served out the terms set for them in accordance with norms and which are obsolete are not practical and require prohibition. Much obsolete equipment, meanwhile, is coming in for capital repair.

In this connection, it is important to develop firm repair. It has long been employed at a number of automotive enterprises, in the production of computer equipment and electronics, in electrical engineering, electrical machine building, nuclear power engineering, the aviation industry and other sectors connected with advanced trends of scientific and technical progress. The experience cited also requires consistent dissemination in the sectors of investment machine building.

Very likely firm repair should be introduced first of all within the framework of enterprises and agricultural organizations of the foodstuff complex, in transport, and in the investment complex where comparatively complete units of large agricultural, transport and construction machinery are being turned out on a large scale.

Under current conditions, the transition from reproduction of capital on the old technical basis to modernization of capacities, taking many technical innovations into account, is an urgent goal. Accumulation in sectors of the national economy of obsolete, wornout assets hinders the improvement of economic indicators and diverts large labor and physical resources to conduct extensive capital repair. It is necessary to bring about coordination of the repair and modernization of the fixed capital of production in operation and to utilize this for the purpose of its technical reequipment.

In forming plans for capital investment, a factor such as the service lives of means of labor which already have been reached is not always taken into consideration, and in this connection, determination of the real scope of expenditures for replacement of retired fixed capital is impeded. Meanwhile, as experience has shown, we cannot lose sight of the age problem in organizing the production apparatus and in selecting the reproductive structure of capital investments.

In the first periods of industrialization, the increasing rates of expansion of fixed capital and the relatively large volume of production capacities being commissioned overshadowed the problem of the age composition of the means of labor, and consequently, the problem of replacement as well. And in that period it was obvious that the higher the rates of expanded reproduction and accordingly of fixed capital, the newer the production apparatus and the relatively less the extent of withdrawal of the means of labor for reasons of dilapidation and obsolescence. But the USSR long ago left the initial stage of industrialization and has turned into a first-class industrial power whose production apparatus in a number of important sectors has surpassed the United States, not to mention other capitalist countries, in capacity.

However, at present many sectors which were considered the leading ones in the early stage of industrialization (for example, ferrous metallurgy; the coal industry; locomotive, railway car and tractor manufacturing; and the cement industry) are being developed much more slowly, yielding their place to such priority sectors as electronic engineering, space technology, and the oil and gas industry. Capital investments in the "old sectors" are being directed to an ever-increasing extent to replacement, and not primarily to expansion of production capacities (as previously).

In the situation mentioned, the question arises: how do our economic statistics reflect the process of fixed capital turnover and the role in this turnover of replacement of the means of labor for planning the national economy? Unfortunately, in contrast with demographic statistics, which make predictions on the growth of population and the labor force based on life expectancy and other calculations, the statistics of capital do not provide the overall distributions of fixed capital according to age. As far as retirement is concerned, it is confined to a repetition of unconvincing bookkeeping data on property writeoff, not connecting them with the processes of aging and replacement of the means of labor. Thus, for a long time the value of equipment and structures destroyed as a result of natural calamity has been aggregated with the value of property transferred from one enterprise to another, that is, it was counted in intrasectorial turnover.

Further. All the funds which were earmarked for reconstruction of enterprises were included in full in capital investments and subsequently--in the increase in fixed capital. However, much of what is destroyed in reconstruction is not considered to have been retired. True, if an inventory project is demolished entirely, its cost is written off from the balance, but when parts of structures are demolished (crane shafts [podkranovyye kolonny], ceilings, walls, and so forth), which is also characteristic for reconstruction, the cost of retirement, as a rule, escapes accounting. Finally, predominantly old or obsolete equipment which has received a lower assessment in the general inventory of fixed capital and is also included in the report of retirement at a lowered evaluation is being retired.

Analysis of the age structure of the means of labor is impossible without the application of comparable evaluations of fixed capital. At the same time, the mixed character of prices in capital construction presents the main difficulty (the greater it is, the longer the period being analyzed). It may be assumed that difficulty in determining age structures has been caused to a significant extent by a price "discrepancy" [tsenovyye "nozhnitsy"] when the cost volume of fixed capital and the evaluation of capital investments are determined.

At one time the underestimation of the cost of operating fixed capital resulted from the procedure of revaluation which provides for large allowances for secondary obsolescence [iznos vtorogo roda] (in connection with reduced machine productivity, increase in fuel consumption, and so forth). As a result, the newly acquired balance value of fixed capital became unequivalent to expenditures for the construction of projects of equal capacity at new enterprises,

and for this reason, it was impossible to consider it as a magnitude of the full replacement value of fixed capital. An example of similar discrepancies in the cotton industry was the comparison of one spinning shaft at a cost of 111 rubles with the actual capital investments calculated for one shaft, equal to 265 rubles. Subsequently, there was a hidden price increase for the equipment as well. The basic quantity of new machines and instruments was not reflected in the pricelists in use, and temporary prices were characterized, as a rule, by substantial increase in cost. At the same time, nonseries equipment constituted about 50 percent of the entire production of machine building.

Calculation of the cost increase indicated changes the picture of the age distribution of fixed capital and often significantly increases the volume of capital replacement. The process of enterprise reconstruction, when often equipment is eliminated, entire parts of a building complex and structures are torn down, and communications and power facilities are reorganized prematurely, operates in the same direction.

A peculiarity of the cycle of replacement in the reproduction process lies in the fact that events of the distant past often make themselves felt in the economic system. This peculiarity, noted at first by demographers, then by economists, has been given the name "investment echo." Such a phenomenon may be explained by the following example. While during the war years the birth rate decreases, a drop in the birth rate is repeated when the war generation reaches marriage age. As applied to economics, the "echo" is slight in the lengthy and monotonous process of development, and on the contrary, is sharply revealed when there are drops in the rates of development of sectors. For some time capital repair has mitigated the "echo" phenomenon, galvanizing obsolete equipment, but it is revealed so much more strongly later on. The large-scale retirement of capacities created under the extraordinary conditions of wartime and in the first postwar years may be recalled.

Capital repair on a large scale often leads to the overloading of fixed capital with obsolete equipment, which impedes the normal turnover of the means of labor. This can intensify the scope of the reinvestment cycle with negative consequences for the technical reequipment of enterprises. For this reason, the process of replacement in the reproduction of capital must be combined with modernization and renovation of available production capacities.

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INVESTMENT, PRICES, BUDGET AND FINANCE

INVESTMENT PROCESS INFLUENCE UPON EFFECTIVENESS

TalMnn IZVESTIYA AKADEMII NAUK ESTONSKOY SSR: OBSHCHESTVENNYYE NAUKI in Russian
Vol 32, No 2, 1983 pp 101-107

[Article by Urmas Sepp: "The Investment Process and the Economic Effectiveness of Public Production in Industry"]

[Text] The economic effectiveness of public production in industry reflects the cost of the results achieved from the production utilization of labor resources, fixed capital, raw and processed materials and energy. The level of economic effectiveness for public production is determined by three factors: 1. the productive force contained in the live labor and the means of production; 2. the degree of its utilization in the production process; 3. outlays of public labor in the production process (these embrace the cost of the production outlays and advanced fixed and circulating capital).

In the definition of K. Marx, the productive force "defines... the degree of effectiveness of expedient productive work for a given period of time" [1, p. 55]. The productive force thus indicates the possibilities and the preconditions for the production of a certain volume of consumption value within a specific time unit. Since K. Marx describes the productive force as a quality of actual labor, "...the productive force is naturally a productive force of useful, actual labor..." [1, p. 55], people frequently cite the works of the Marxist-Leninist classics to erroneously linking the productive force only to live labor. In doing so they ignore the fact that K. Marx also used the term "dead productive force." The latter is "skill transferred from direct labor into machines" [2, p. 225] and consequently, a productive force is a means of production. The viewpoint whereby a productive force is a feature only of live labor and not an element of the means of production therefore does not conform to K. Marx's understanding of the essence of this matter.

Although the productive force does define the level and the changing trend in the effectiveness of public production, this effect is only achieved in the process of its utilization. K. Marx wrote: "The very same means of labor, that is, the very same fixed capital, can be utilized more effectively by lengthening the duration of its annual utilization or by increasing the intensity of its application, and this does not require additional monetary outlays for fixed capital" [3, p. 339]. The degree of utilization of the productive force depends directly

upon the functioning of the economic system.¹ The economic system, as defined by A. Kleern [5, p. 14], is the system which unites the economic and legal methods regulating the process of material production and leading to a specific goal with the methods of economic work performed by the people and the economic units.

The productive force is partially or totally used up in the production process under the influence of the economic system. Economic effectiveness depends directly upon the level of utilization of the productive force. It is clear without a detailed explanation that the effectiveness of production outlays is greater when the productive force is realized in great volume (which is characterized by the degree to which the equipment is loaded with respect to capacity and time, the level of utilization of worktime and live labor, and so forth), since fewer outlays of public labor are necessary for the result produced in this case.

The Investment Process as the Creator of the Productive Force in the Means of Production

The productive force of the means of production--their ability to produce a specific volume of output, of specific composition and quality--is formed by the investment process.² This process begins the moment the material means and live labor are put into the preparation of capital investments and ends with the achievement of rated indices for the production capacities placed into operation [6, p. 20]. The ability of fixed capital to turn out products is created in the following stages: 1. the ideal productive force in the form of a plan; 2. potential force (at the moment the unit is released for operation, while its real consumption value in operation is not yet clear); 3. real or actual productive force, which is totally formed during the period of operation (before rated capacity has been reached).

The ultimate effect of investment in industry in the process of creating the actual productive force of the fixed capital is manifested in two forms--quantitative and qualitative. The investment process performs the role of quantitative generator as a factor of intensive production development. In the most general terms intensive development of production is characterized by a growth of the means of labor (the construction of new enterprises) at the existing technological level, that is, with the use of traditional equipment. Although the total productive force of the fixed capital in industry and consequently, the result from production, depends upon the extensive growth factors, the latter are only indirectly linked to the economic effectiveness of production. In the case of extensive production growth the amount of public labor outlays embodied in the production result is more or less constant, as a result of which the economic effectiveness is unvarying.³

The qualitative influence of the investment process upon the productive force, on the other hand, is closely linked to production effectiveness and stems from the fact that the investment process is the main means of employing the results of scientific and technological progress in production. The latest achievements of technological progress are introduced into production and new and more productive equipment and technology are mastered by means of capital investments. And so, because of its qualitative effect with respect to increasing the

productive force, the investment process can be regarded as a factor of intensive economic development. Since not all intensive development produces an increase in production effectiveness (intensive reproduction can be capital-intensive or capital-conserving), the qualitative growth of the productive force in the means of labor, which increases the result of production, also does not always enhance its effectiveness.

The above-mentioned influence of the investment process on economic effectiveness depends upon the correlation of the productive force to the cost of the fixed capital placed into operation. If the cost of a unit of capacity of more productive fixed capital is reduced or remains at the same level, production effectiveness grows as a result of the investment process (the volume of public labor outlays resulting in the production effect is reduced). If the cost of a unit of capacity of means of production containing technological innovations increases, however, the influence of the investment process on effectiveness depends upon the degree to which the increase in cost is accompanied by a relative saving for the other production elements.

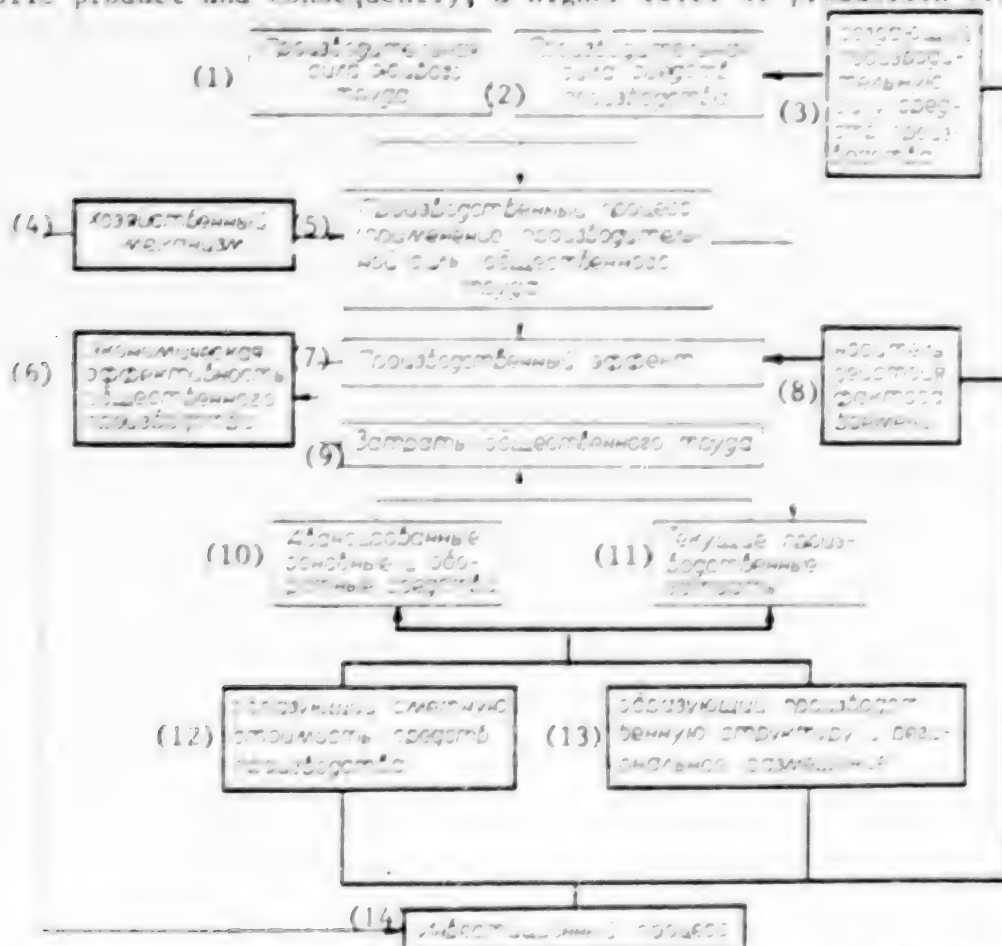
If that saving exceeds the increase in the cost of a unit of capacity, then, as K. Marx states in his description of the growth of public labor productivity: "...the portion of live labor is reduced, while the portion of embodied labor increases, but it increases in such a way that the total amount of labor embodied in the product is reduced and consequently, the amount of live labor is reduced to a greater degree than the increase in the amount of embodied labor" [7, p. 286] and production effectiveness grows. The opposite frequently occurs in economic practice, however--an excessive increase in the cost of fixed capital placed into operation, produced by an unjustified increase in the cost of machinery and equipment, as well as in the estimated cost of construction and installation work, exceeds the positive effect from the growth in the productive force of the equipment.

The Investment Process as the Process Shaping the Structure and the Regional Distribution of Production

Although the productive force is a substantial result of the investment process, its influence upon the effectiveness of public production is not limited to this. As a factor of production effectiveness the investment process has a multifunctional effect upon it: Both each investment act separately and the investment process as a whole simultaneously affect various elements of production effectiveness (see diagram).

While determining the nature of reproduction, the investment process inevitably affects economic effectiveness through the volume of public labor expended in the production process. The investment process is primarily a means of implementing the policy of structural reform. By means of investments the socialist state provides for the development and the improvement of the planned production structure. The production structure embraces three types of proportions: interbranch, intrabranched and within the production unit. The investment process has a multifaceted effect upon the structure of the production unit (the structure at the enterprise level). Capital investments directly affect the production infrastructure, determine the correlation of active and passive fixed capital and

production capacities for the subdivisions or groups of equipment, alter the scope and the focus of specialization and cooperative relations, and so forth. Despite this, the levels of implementation of structural reforms dependent upon capital investments can only be separated in an abstract manner. The fact is that structural reforms at the various national economic levels (the enterprise, the branch and so forth) occur simultaneously, since the macroeconomic proportions can only be altered by means of specific investment acts. The latter determine the structure within the production unit, upon which changes in the production structure at higher economic levels depend. A production structure which is nearly optimal assures the smallest outlays of public labor for production of the public product and consequently, a higher level of production effectiveness.



Influence of Investment Process Upon Economic Effectiveness of Public Production

- Key:
- | | |
|---|--|
| 1. Productive Force of Live Labor | 8. Time Factor Agent |
| 2. Productive Force of Means of Production | 9. Outlays of Public Labor |
| 3. Creating Productive Force of Means of Production | 10. Advanced Fixed and Circulating Capital |
| 4. Economic System | 11. Current Production Outlays |
| 5. Production Process (application of productive force of public labor) | 12. Creating Estimated Cost of Means of Production |
| 6. Economic Effectiveness of Public Production | 13. Shaping Production Structure and Regional Distribution |
| 7. Production Effect | 14. Investment Process |

Another important task of the investment process, along with the structural reforms, is that of implementing regional economic policy.⁴ The investment process must therefore assure the efficient distribution of public production, taking unique regional factors into account. The regional distribution of production forces is also a factor in the enhancement of production effectiveness, which assures the best utilization of the natural, energy and labor resources of the various regions and the smallest expenditures for the production and transportation of the product.

And so, the investment process enhances the effectiveness of public production if the capacities placed into operation assure the efficient distribution of production and its optimal structure. If the capacities placed into operation do not meet the requirements for optimal structure and efficiency, however, outlays of public labor increase with respect to the production result and consequently, production effectiveness drops.

The Investment Process as the Agent of the Time Factor's Effect

The extent to which the investment process makes it possible to reduce the negative effect of the time factor upon the effectiveness of public production is a significant qualitative feature. Prolongation of the investment process primarily produces a negative effect. There is a real need for a certain amount of time to implement the investment process. Maximum durations for the investment process are specified in the pertinent standards.⁵ In our economic practices the investment period actually exceeds the construction and start-up periods specified in the standards.⁶ During all of this above-normal time used for implementing the investment process, the capital investments are not involved in current production (they are frozen). Consequently, because of the time lost when the capital investments should have been functioning as fully operative fixed capital, the production effect is less than when the investment process is completed within the standard period of time. This loss occurs not only at the capacities where construction periods and start-ups are delayed, but also at shops and enterprises connected with them. The lost products in the form of raw and processed materials, semi-finished products, equipment and so forth could have been used at other industrial enterprises, where part of the possible effect remains unrealized because of their absence. We also have the opposite situation, in which the release of an enterprise planned as a consumer of a certain type of product is delayed. If the product is not in short supply, its producer will have difficulty selling it. In order to avoid this it is necessary to reduce the plant's production volume until the consuming enterprise is placed into operation and achieves the required capacity. It follows from what we have said that the more the normative periods for the release of new industrial facilities for operation and their achievement of maximum (rated) capacity are delayed, the lower is the effectiveness of public production for a specific period of time.⁷

Since the investment process can occur with varying degrees of intensity at different times, the influence of the time factor upon production effectiveness is not limited to the duration of the construction process and mastery of the capacities. The intensity of the investment process at different times is reflected primarily in the distribution of capital investments over the entire construction

period. We know that it is most advantageous to apply the bulk of the means at the end of the construction period, which reduces the amount of time during which they are frozen. As a result, it is most expedient to carry out the construction with increasing distribution of capital investments as time elapses. This reduces losses to a minimum. In the actual investment process, however, it is impossible to precisely follow this recommendation, since requirements for efficient construction are not linked to the advantageous distribution of investments within the construction period (from the standpoint of the freezing of funds). When we postpone the application of capital investments until the end of construction, the volume of construction and installation work (the basis for the continuation of construction) essential for the normal progression of subsequent construction remains uncompleted during the first years of the creation of the production capacities. Construction is dragged out as a result, and this is accompanied by losses of operational results for the purchasers of the facilities. A parabola-form time-table for the distribution of capital investments over the period of time is therefore typical of most construction projects (the bulk of the investments are applied in the middle period of construction, smaller portions at the beginning and the end). And so, in order to achieve the most efficient distribution of capital investments, the smallest possible amount should be applied during the first years of construction, but in a quantity sufficient for the normal progression of construction in subsequent periods.

The efficient distribution of capital investments over the time period is specified in the standards [9]. If a certain portion of the capital investments is applied ahead of the schedule indicated in the time distribution standards, it will be unjustifiably removed from active utilization (until that time when it should actually have been applied from the standpoint of efficient organization of the construction work). Resources are tied up, which should have been used in reproduction for other purposes. The effect from public production is partially lost, and the level of effectiveness for public production is lower than it would have been, had the capital investments been applied more efficiently over the time period.

The time-related intensity of the investment process is also manifested in the stage of mastering the capacities, when it depends upon the progress made in achieving rated indices (the degree to which the achievement of rated capacities coincides with the standards specified for progress in mastering the capacities). If, after the production facility is operating, the specified production capacity has not been reached by a certain time (if it is supposed to be operating at 60 percent of rated capacity by the end of the 1st year of operation, for example, but is actually turning out only 40 percent of the planned production volume), then part of the effect from its operation is lost. This means that the level of effectiveness for public production is also reduced.

We have become convinced that the investment process simultaneously affects all of the significant factors contributing to the achievement of effectiveness for public production. As the agent of the time factor, however, the investment process has not been given adequate attention in the economic literature. The authors of works [11-14], for example, did no more than simply explain the effect of the duration of construction upon the growth of public production,

although they should also have considered the period of time involved in mastering the production facilities and the intensity of the investment process over the period of time.

Since the time factor has an overall effect upon effectiveness, it is very important to take this factor into thorough account in production planning and control. In order to consider the effect of the time factor upon the effectiveness of public production, we must first work out a system of methods for defining this effect quantitatively. Special attention should be given to this matter in future studies on the subject.

FOOTNOTES

1. Strictly speaking, the productive force of the fixed capital itself, like the other indicators of effect from the investment process (duration, estimated cost of the production facilities placed into operation, and others), depends upon the functioning of the economic system or, as noted by V.I. Rybin and A.A. Khachatryan [4, p. 29], upon the subsystem of the economic system within the investment sphere. Within the scope of this article, however, we cannot discuss the above-mentioned aspect of the economic system's influence.
2. In this article we discuss only that part of the investment process which is linked with the application of industrial capital investments.
3. This principle functions in only an abstract manner, since neither intensive nor extensive expanded reproduction is observed in pure form. We can only speak of dominant intensive or extensive development at a specific stage. Therefore, even with a general extensive growth, production effectiveness is altered by the effect of intensive economic growth factors.
4. V.I. Bruzhenkov [8, p. 7] considers improvement of territorial organization of the national economy, distribution of the productive forces, the development of large national economic complexes, the development of new areas with large concentrations of natural resources, intensification of territorial division of labor, the enhancement of effectiveness of intra- and inter-regional economic relations, and so forth, to be tasks of regional economic policy.
5. Current established periods for construction and mastery of production capacities are indicated in normative documents [9, 10].
6. Although the length of the investment time is determined by the total time involved in planning and building and the mastery of capacities, we will not consider the influence of planning time upon the effectiveness of public production, since the overall duration of the investment process is determined not so much by the time involved in planning and research work as by the level of their execution (the quality of the technical specifications and the blueprints). And this is a factor the effect of which upon the periods of time required to create new production facilities is manifested in the duration of the subsequent investment stages.

7. If we were studying the effect of the investment process upon the functional effectiveness of the entire sphere of material production, the requirement for minimizing the length of the construction process would not be justified. The fact is that a reduction in the construction period, which produces an increase in the production effect for the user of the means of production, is accompanied by an increase in production outlays in the area of construction (outlays for additional transportation and for moving the workers, construction materials and equipment, and additional wages). This reduces the positive effect from the reduction of construction time in direct proportion to the additional construction outlays for the additional effect from the earlier start-up of the fixed capital. And so, the shortest possible construction periods are the optimal periods from the standpoint of industrial production effectiveness.

BIBLIOGRAPHY

1. Marx, K. and Engels, F., "Soch"[Works], 2nd edition, 23.
2. Ibid., 46, Part 11.
3. Ibid., 24.
4. Rybin, V.I. and Khachatryan, A.A., "Khozyaystvennyy mekhanizm v investitsionnoy sfere (problemy sovershenstvovaniya)[The Economic System in the Investment Process (Problems Involved in Improving it)], Moscow, 1981.
5. Koorna, A., "Majandusemekhanismi talustamisest arenenud sotsialistlikus uhiskonnas," Tallin, 1981.
6. Ivanov, I.S., "Raschety effektivnosti kapital'nykh vlozheniy"[Calculating the Effectiveness of Capital Investments], Moscow, 1979.
7. Marx, K. and Engels, F., "Soch.," 2nd edition, 25, Part 1.
8. Duzhenkov, V.I., "Scientific and Technological Progress and the Distribution of Productive Forces" in the book "Regional'nyye problemy nauchno-tekhnicheskogo progressa v promyshlennosti"[Regional Problems of Scientific and Technological Progress in Industry], Moscow, 1981.
9. "Standard Construction Periods and Bases for Subsequent Construction Stages in the Construction of Enterprises, Buildings and Installations (Construction Norms 440-79)," Moscow, 1981.
10. "Standards Governing Time Allowed for Mastering Capacities of Enterprises Going Into Operation," Moscow, 1975.
11. Sachko, N.S., "Faktor vremeni v sovetskoj ekonomike"[The Time Factor in the Soviet Economy], Moscow 1976.
12. Sachko, N.S., "Time and Production Effectiveness," EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA, No. 7, 1980, pp. 29-39.

13. Yakovlev, G.S., "The Effect of the Time Factor Upon the Effectiveness of Capital Investments," in the book "Problemy politicheskoy ekonomii i regional'noy ekonomiki" [Problems of Political Economy and Regional Economics]. Sverdlovsk, 1978.
14. Ger nimus, A.Yu., "The Effect of the (laga) and the Rate of Economic Growth in the Macroeconomic Model," EKONOMIKA I MATEMATICHESKIYE METODY, 1975, XI, Issue 6, pp. 1082-1090.

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INDUSTRIAL DEVELOPMENT AND PERFORMANCE

GOSPLAN HEAD HAS AZERBAIJAN MEETING

Meeting Opens

Baku BAKINSKIY RABOCHIY in Russian 29 Jun 83 p 2

[Article: "Along the Path Outlined by the Party; the Meeting of N. K. Baybakov With the Voters"]

[Excerpts] The voters of Baku's Shaumyanovskiy Second Electoral District at a meeting with their deputy, Member of the CPSU Central Committee, Deputy Chairman of the USSR Council of Ministers and Chairman of the USSR State Planning Committee N. K. Baybakov declared their steadfast resolve to devote all their strength, knowledge, experience and skill to the implementation of the plans of the party, in the name of the further flourishing of the socialist homeland. It was held on 27 June at the Club imeni F. E. Dzerzhinskiy.

Comrades N. K. Baybakov, K. M. Bagirov, V. A. Guseynov, G. N. Seidov, S. B. Tatliyev, Z. M. Yusif-zade and Deputy Chairmen of the Azerbaijan SSR Council of Ministers A. D. Lemberanskiy and A. N. Mutalibov were in the presidium.

First Secretary of the Shaumyanovskiy Rayon Party Committee N. A. Mamedov opened the meeting.

The Politburo of the CPSU Central Committee headed by Comrade Yu. V. Andropov was elected with great enthusiasm to the honorary presidium.

Deputy of the Azerbaijan SSR Supreme Soviet T. R. Akhmedova, an operator of the Petroleum Refinery imeni XXII s"yezda KPSS, speaks. "We, the working people, like all the Soviet people," she said, "perceived with a sense of deep satisfaction the decisions of the June (1983) CPSU Central Committee Plenum and the Eighth Session of the USSR Supreme Soviet and the election of General Secretary of the CPSU Central Committee Comrade Yu. V. Andropov as Chairman of the Presidium of the USSR Supreme Soviet. We are well aware that the successful implementation of the plans of the party will require of each of us the maximum exertion of efforts and the further increase of organization and discipline.

"The fundamental modernization of the petroleum refining sector made it possible to increase significantly the level of the automation and mechanization of production and to decrease the amount of manual labor. Today our refinery is literally going

through a second youth. We express sincere thanks to our party and government for the constant assistance to the republic and to you personally, Nikolay Konstantinovich, for the attention to the demands and needs of the petroleum refiners. Our collective fulfilled ahead of time the half-year plan. However, not all the reserves and possibilities have yet been utilized. Our task is to place them at the service of production, in order to henceforth carry high the title of right flankers of the five-year plan."

Deputy of the Azerbaijan SSR Supreme Soviet L. S. Indina, an operator of the Novo-Bakinskiy Petroleum Refinery, speaks.

Comrade Indina gave assurance that the workers of the Novo-Bakinskiy Petroleum Refinery would henceforth work dedicatedly in the special shockwork effort of the five-year plan. She wished N. K. Baybakov sound health and new great successes in his responsible post.

The floor is given to Comrade N. K. Baybakov, who was greeted warmly by those present.

Baybakov Delivers Speech

Baku BAKINSKIY RABOCHIY in Russian 29 Jun 83 p 2

[Report on speech by Chairman of the USSR State Planning Committee N. K. Baybakov to the voters of Baku's Shaumyanovskiy Second Electoral District on 27 June 1983]

[Text] Dear comrades! Every time, when I come to my native Baku, I find with pleasure in its appearance significant changes--these are new well-appointed residential districts, splendid buildings and sports structures, which have embellished the city.

For outstanding achievements in the matter of building communism during the 10th Five-Year Plan the Azerbaijan SSR was awarded three times the highest decoration of the homeland--the Order of Lenin. Of course, these noteworthy achievements did not come by themselves. They became possible owing to the dedicated labor of the working class, the kolkhoz peasantry and the national intelligentsia, the purposeful political and organizing activity of the Central Committee of the Communist Party of Azerbaijan and the republic government on the mobilization of the masses for the fulfillment of the tasks posed by the party.

I am glad to note that during the past 2 and 1/2 years of the 11th Five-Year Plan new gains have been made in the development of the national economy of Azerbaijan. The plans established for this period in industry and agriculture were fulfilled ahead of time. This is vivid evidence of the dynamism of the development of your republic and the great activeness of all the working people. I heartily congratulate you on these fine achievements and wish new achievements to everyone who by his labor is creating physical and spiritual assets. I wish to express sincere gratitude for the warm words, which were expressed with reference to me, and to assure you that I will henceforth honorably fulfill the duties of a deputy.

The middle of June of this year was saturated with the most important political events in the life of our party and country. The Soviet people followed with

unremitting attention and interest the work of the CPSU Central Committee Plenum and the session of the USSR Supreme Soviet. The decisions and documents of the plenum and session and the election of Comrade Yu. V. Andropov as Chairman of the Presidium of the USSR Supreme Soviet received everywhere the unanimous support and complete approval of the Soviet people. The purposeful, enthusiastic and enterprising activity of Yu. V. Andropov in the post of General Secretary of the CPSU Central Committee has won him the universal respect and confidence of the party and the people.

In studying the documents of the plenum and session, each of us is convinced once again that the main point, the fundamental content of the activity of the CPSU is concern about the Soviet individual, the improvement of his life, his all-round development, the creation of peaceful conditions for the accomplishment of his historic mission--the building of a communist society.

The plenum discussed the urgent questions of the ideological, mass political work of the party and adopted the corresponding decree. In it the CPSU Central Committee unanimously endorsed the program provisions and conclusions, which are contained in the speech of General Secretary of the CPSU Central Committee Comrade Yu. V. Andropov.

Now the Soviet people are working with great enthusiasm on the accomplishment of the tasks of building communism, which were posed by the 26th CPSU Congress and the subsequent plenums of the party Central Committee. The efforts of party, soviet, trade union, Komsomol and economic organs, all the communists and working people of the country are presently concentrated on the decisive sections of the work, on those key questions which were specified at the November (1982) and June (1983) CPSU Central Committee Plenums.

Having dwelt further on the achievements in the development of the national economy of the country during the past 2 years of the five-year plan, Comrade Baybakov emphasized that during this period the economic might of our state had increased, its defensive capability had been strengthened, the material and cultural level of the life of the Soviet people had increased. At the same time, he said, as was noted at the November (1982) CPSU Central Committee Plenum, not all of the assignments of the first 2 years of the five-year plan were fulfilled. This applies both to individual quantitative indicators of production and to the indicators of its efficiency.

The November (1982) and June (1983) CPSU Central Committee Plenums specified the means of the further improvement of the work of party and economic organs, the tightening up of discipline and order, the increase of the responsibility of personnel, the strict observance of the laws and the further increase of the economic potential of the country.

The working people of our country, while fully endorsing and supporting the decisions of the party, during the first half of this year provided a good reserve in the fulfillment of the assignments of the state plan for 1983. In industry the fulfillment of the plan on the total volume of sales of output during the past 5 months came to 102 percent. The increase of the total volume of output during this period is equal to 4.1 percent as against 3.2 percent according to the annual plan and 2.6 percent during the corresponding period of 1982. The plan of production of the majority of types of industrial output was fulfilled.

In agriculture the plan of purchases of livestock, poultry, milk and eggs was exceeded. Here a significant increase of this output was achieved as compared with the corresponding period of last year.

The situation in rail transport improved somewhat, the technical and economic indicators in its operation increased. In capital construction as compared with the corresponding period of last year the placement of fixed capital into operation increased and the use of capital investments improved.

Definite qualitative changes also occurred in the work of the sectors of the national economy. Labor productivity increased in industry, rail transport and construction. The number of enterprises, which have not been fulfilling the production plans, decreased.

Positive results were achieved in the construction of housing, schools, preschool institutions, hospitals and other cultural and personal service facilities. A number of important steps were taken on the improvement of the supply of the population with foodstuffs and industrial goods.

Now our common task is to consolidate the achieved results and to develop the gains in the fulfillment and exceeding of the plan assignments of the third year of the five-year plan. As Comrade Yu. V. Andropov indicated, it is necessary to finish what, frankly speaking, we did not finish during the first 2 years, and to try to make up for lost time and to create the conditions for normal work during the last 2 years.

And here, of course, every labor collective, ministry and republic should focus their attention on the fulfillment of the plan assignments not only on the total production volume, but also on specific types of output and the qualitative indicators--labor productivity, the decrease of material expenditures and the product cost, the increase of its quality and the fulfillment of the obligations on deliveries. Only on this condition will we be able to ensure the balanced development of the national economy and the changeover of the economy to the primarily intensive means of development, as was indicated in the decisions of the 26th CPSU Congress.

In spite of the acceleration of the rate of development of the economy, this year as compared with last year the situation with the fulfillment of the plan with respect to a number of types of products is arousing anxiety. The nonfulfillment of the assignments with respect to the physical indicators in the end leads to the disturbance of the economic ties in the economy.

The CPSU Central Committee and the USSR Council of Ministers recently adopted a decree on the elimination of the serious shortcomings in the observance of contractual obligations on deliveries of products and the increase of the responsibility of the ministries, departments and enterprises, which will play an important role in the tightening up of state and planning discipline.

The efficient and assiduous use of all the available manpower resources, fixed capital, fuel, raw materials and the products of fields and stock farms is also an important factor of the intensification of the economy and the practicability of our plans. In conformity with the decree of the CPSU Central Committee and the

USSR Council of Ministers in the five-year and annual plans standards of the consumption of the most important materials, fuel and power in physical terms per unit of output and assignments on their decrease have been established for the ministries, departments and union republics. However, locally these assignments are not always backed by specific measures. As a result, according to the data of the USSR Central Statistical Administration and the USSR State Committee for Material and Technical Supply, in 1982 the assignments on the saving of electric power and thermal energy and furnace fuel oil were significantly underfulfilled.

The situation with this matter is also unsatisfactory this year. This confirms once more the need for the performance of daily painstaking work among the broad masses of working people on the cultivation of an economical, thrifty attitude toward material resources, which are national property. A resolute campaign should be waged against mismanagement and wastefulness. We should constantly keep in mind that the saving envisaged by the plan serves as an important source of the increase of production.

The consistent implementation of the long-range economic policy of the CPSU, which is aimed at the assurance of the further increase of the well-being of the Soviet people, is envisaged in the five-year and annual plans. The implementation of the Food Program, for the accomplishment of which an enormous amount of capital has been allocated, holds an important place in the accomplishment of this task. And therefore their efficient use should become one of the central tasks of the development of the agro-industrial complex.

Meanwhile data show that the fulfillment of the plan of the placement of fixed production capital into operation in the sectors of the agro-industrial complex by means of state capital investments is not being carried out satisfactorily everywhere. The assignment of the first half of the year on the placement into operation of poultry factories, livestock barns, feed plants, vegetable storehouses, elevators and several other facilities was not fulfilled.

The CPSU Central Committee and the USSR Government are taking steps on the increase of the responsibility of the workers of kolkhozes, sovkhoses and other enterprises of the agro-industrial complex for the increase of the efficiency of the use of not only the material and technical resources, which are at their disposal, but also those being newly allocated by the state.

The 8th Session, 10th Convocation, to the USSR Supreme Soviet passed the USSR Law on Labor Collectives and the Increase of Their Role in the Management of Enterprises, Institutes and Organizations. The passage of this law is a new step in the implementation of the policy of the party of the development of socialist democracy and the more extensive enlistment of the working masses in management and the solution of statewide problems.

The gains made in 2 years of the 11th Five-Year Plan are a result of the dedicated labor of all the peoples of the USSR and all the union republics. "Modern productive forces," Yu. V. Andropov noted in his report at the solemn meeting on the occasion of the 60th anniversary of the USSR, "require... the close and skillful combining of the efforts of different regions and republics.... The wisest use of the natural and manpower resources, the climatic peculiarities of each republic, the most efficient inclusion of this potential in the all-union potential--this is

what will be of the greatest advantage to every region, every nation and nationality, as well as the entire state."

The working people of the Azerbaijan SSR are making a significant contribution to the common cause of the socioeconomic development of our country. As is known, during the years of the 10th Five-Year Plan the economy of Azerbaijan developed at the fastest pace in the country. A large economic, scientific and technical potential was created. The efficiency of social production increased appreciably, the sectorial and territorial structures of the national economy of the republic improved, the level of the material well-being of the working people increased.

It is gratifying that these progressive trends are also continuing during the 11th Five-Year Plan. In evaluating the results of 2 years of it and comparing them with the assignment of the five-year plan, it can be safely said that they completely conform to the instructions of the 26th CPSU Congress and the 30th Congress of the Communist Party of Azerbaijan.

While speaking about this, I wish to note with particularly warm feelings the great personal contribution to the successful development of the republic economy of Member of the Politburo of the CPSU Central Committee G. A. Aliyev, who has worked for more than 13 years as First Secretary of the Central Committee of the Communist Party of Azerbaijan.

Further Comrade Baybakov analyzed the development of the national economy of Azerbaijan since the beginning of the 11th Five-Year Plan. The economy of Azerbaijan, he said, also continues to develop rapidly this year. The volume of industrial output increased in 5 months by 5.3 percent, moreover, the plans on the most important types of output were fulfilled and exceeded.

Among the leading sectors of industry of Azerbaijan an important place belongs to the fuel and power complex. The republic is faced with the task not only to stabilize, but also to find means of increasing petroleum production by means of the development of new deposits and the improvement of the technology of working the deposits in operation.

During the 11th Five-Year Plan definite work has already been done on the construction of the surface facilities of promising deposits on land and at sea. The plan on gas production was exceeded, which cannot be said about petroleum production, which continues to decline. The lag in the work of the sector is explained by serious shortcomings in exploratory and probe drilling and by poor production and technological discipline, which frequently leads to accidents and downtimes in drilling. The rate of the reequipping of the fields with new, advanced equipment is inadequate.

Much attention is being devoted in the republic to the retooling of operating enterprises of the petroleum refining industry. In recent years the losses of petroleum have decreased significantly, product quality has improved. Much work has been done by the Azerbaijan Ministry of the Petroleum Refining and Petrochemical Industry on the organization of the refining of heavy sulfur-bearing Buzachi petroleum.

However, the developed capacities for the primary refining of petroleum for the present are not being utilized completely. Objective reasons, which are connected

with the decline of the level of production of petroleum in the republic and its deliveries from other regions, also exist here. At the same time it is necessary to use more economically the available petroleum resources, to increase the degree of its refining and to improve the quality of petroleum products, in order to eliminate in the immediate future the lag in the fulfillment of the assignments of the five-year plan.

The Azerbaijan SSR Ministry of the Petroleum Refining and Petrochemical Industry should devote more attention to the construction of the facilities which are envisaged by the corresponding decree of the USSR Council of Ministers.

Today, while familiarizing myself with the petroleum refining facilities, I got enormous satisfaction from the fact that I saw the great changes which have occurred in recent times in Shaumyanovskiy Rayon. Beautiful Rabochiy Prospect, the outlines of the new plants at the petroleum refineries, which are furnished with modern equipment. In short, the petroleum refiners along with the construction workers have done enormous work.

And what is especially pleasing, the comrades are starting to work on new, promising deeds and are striving to turn the Black City into a bright city, as G. A. Aliyev stated figuratively in one of his speeches. I do not doubt that in the very near future these splendid plans will be accomplished.

In our times the petroleum refining sector is acquiring particular importance. Now we need to meet the needs of the national economy for motor fuel by means of the heavy refining of petroleum. Serious attention must also be directed to the use of natural gas as a motor fuel.

The further development of the power base of the republic is one of the central tasks of its economy for the next few years. In Azerbaijan much work has been done on the creation of the capacities for the generation of electric power, Comrade Baybakov noted, having dwelled on the prospects of the development of this important sector in the republic.

When speaking about the high rate of development of agriculture in Azerbaijan, he emphasized that it is necessary to consolidate the achieved gains during the third year of the 11th Five-Year Plan, to steadily increase the production of products of plant growing and animal husbandry. Comrade Baybakov shared his impressions about his visit to Lenkoranskii Rayon and noted that this zone has become a genuine agricultural granary, which can supply not only Azerbaijan, but also many regions of the country. The potentials of this region are great, they are making it possible to pose and accomplish major tasks. It seems that the people of Lenkoran can increase the production of vegetables significantly, if they implement a number of measures which are connected with the intensification of agriculture and the modernization of the processing sector.

And, of course, in the future Lenkoran should be turned into an excellent resort of our country. For its rich land conceals resources which should be placed at the service of the health of our people--excellent therapeutic waters, marvelous climatic conditions.

Much attention in the republic, Comrade Baybakov continued, is being devoted to the organization of the relaxation of the working people. As is known, for the purpose of the extensive use of the climatic and balneological potentials of the shore of the Caspian Sea the USSR Council of Ministers adopted a special decree, "On Measures on the Creation of a Health Resort Zone of All-Union Importance on the Shore of the Caspian Sea in the Azerbaijan SSR." In conformity with it sanatorium and health resort facilities in the system of recreation and tourism with a total of about 90,000 places will be built. It is planned to allocate more than 1.3 billion rubles of capital investments for the construction of the health resorts of Yalama-Nabran, Kilyazi-Zarat, Severnyy Apsheron and Lenkoran.

The achievements in the development of the national economy of Azerbaijan are obvious. But these gains and, consequently, the contribution of the republic to the all-union economy could have been even more significant, if the reserves of the increase of efficiency and quality, which exist in all the sectors and spheres of the national economy, had been utilized more thoroughly.

Returning to the question of the oil drilling industry, it must be said that it is necessary to increase significantly the oil recovery of the bed, about which we already spoke several years ago. The Central Committee of the Communist Party of Azerbaijan at that time passed a special decision on this matter, but its implementation for the present is proceeding slowly.

But Azerbaijan has old traditions, it played an enormous role in the rout of the fascists, having supplied our army and fleet with fuel. Here the petroleum deposits have been worked for more than 110 years. And still on the Apsheron Peninsula, in spite of the fact that many wells, which were considered depleted, have been written off, a significant amount of petroleum still remained in the ground. It is possible to extract it, by using secondary and tertiary methods--thermal bed stimulation, the injection of steam and surfactants, the ignition of the bed and others. In short, the Apsheron Peninsula has enormous reserves and possibilities. And the Azerbaijan oil workers must reorganize the work in earnest for the solution of this important problem. The Central Committee of the Communist Party of Azerbaijan is preparing to hold a plenum on this matter. This is very timely, for everything must be done so that the old mineral resources of Azerbaijan would begin to speak again in a loud voice, the former glory of the oil workers of the republic must be revived.

Significant shortcomings exist in capital construction. The annual plan of capital investments in 1982 was fulfilled by 96 percent, while that of construction and installation work was fulfilled by only 93 percent. The annual plan on the placement of fixed capital into operation was not fulfilled by 12 percent.

It is impossible not to speak about the unsatisfactory fulfillment of the plans on housing construction. Taking into account the inadequate average level of the supply of the population with housing, additional capital investments for housing construction have been allocated to the Azerbaijan SSR for the 11th Five-Year Plan. But due to the inadequate work of construction organizations the plans on housing construction are not being fulfilled. In 2 years of the five-year plan alone 282,000 m² were not put into operation.

I want to draw to this the special attention of party and economic organizations because of the 900 letters received by me in the past 3.5 years from voters, more than 800 appeals concern the housing question. The Baku City Soviet Executive Committee needs to devote more attention to the assurance of the fulfillment of the plans of housing construction, as well as to review more carefully the statements and letters of the working people on housing and other questions.

You also have other important problems in the area of the intensification of the campaign for the efficiency and quality of production, on which it is necessary to focus the attention of the communists and all the working people of the republic.

I wish to express confidence, Comrade Baybakov said in conclusion, that the communists and all the working people of the republic, by developing socialist competition in every possible way, will successfully fulfill the assignments of the five-year plan, will do everything necessary for the further development of the economy, science and culture and thereby will make a worthy contribution to the cause of the strengthening of the might of our homeland.

(The speech of Comrade N. K. Baybakov was listened to with great attention and was repeatedly interrupted by prolonged applause.)

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REGIONAL DEVELOPMENT

EQUALIZATION OF ECONOMIC, SOCIAL DEVELOPMENT LEVELS OF REPUBLICS

Moscow IZVESTIYA AKADEMII NAUK SSSR: SERIYA EKONOMICHESKAYA in Russian No 6,
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[Article by E. B. Alayev and S. I. Khvatov: "The Historical Process of the Equalization of the Levels of Economic and Social Development of the Union Republics"]

[Text] The elimination of the economic and social inequality of the territorial units, which are a part of the Soviet Union, and the creation of a unified national economic complex of the country are posing new tasks within the framework of the problem of territorial equalization, are filling it with a new content and are increasing the social orientation of the process of equalization. This is opening new horizons for territorial planning and is dictating the need for its improvement, development and strengthening. The article is devoted to all these questions.

Sixty years separate us from a memorable date, the birth of the first multinational socialist state in the world, the Union of Soviet Socialist Republics. Now, when a mature socialist society has been built in our country, a look at the traversed path makes it possible to see even better the enormous achievements in case of the implementation of the strategy of the CPSU in the area of the solution of the most important economic and social problems of national and regional policy. These achievements merit great appreciation especially as on the path to them the socialist state had to overcome considerable difficulties.

It is difficult to overestimate the importance of the gained experience of building socialism in our country. It is helping many countries, which have entered the path of social progress, to build a new society. Its value is also great for the USSR itself. The comprehension of the past from the standpoint of today helps to get one's bearings better in the plans for the future, to avoid the repetition of mistakes and to accomplish successfully the tasks of the choice of the optimum strategy of development, which are becoming more complicated.

The elimination of the economic and social inequality, which characterized the development of individual regions of tsarist Russia, is among the basic problems, the solution of which had to be faced starting with the first years of the building of socialism. As is known, the young socialist state inherited an extremely disproportionate territorial structure of the economy. In particular, industry was concentrated almost exclusively in the regions of Moscow (the Central Region) and

Petersburg, to a lesser extent in the Urals and the south (the Donbass Region). The vast expanses of Siberia and the Far East had not been developed; but the former tsarist colonies, the outlying national areas, were in an especially backward state. The peoples of the Caucasus, Kazakhstan and Central Asia were at the level of feudal and semifeudal relations; universal illiteracy and a high level of morbidity and the death rate were characteristic traits, to say nothing of the complete lack of modern industry (with the exception of the oil fields of Azerbaijan).

Therefore the development of the economy and culture of the outlying national areas became one of the leading principles of the regional socioeconomic policy of the Communist Party.

On the entire path of the building of a socialist society the equalization of the levels of both the economic and the social development of different territories of the country was regarded as a unified and interconnected problem.

During the prewar years, as well as during the restoration period after the end of the Great Patriotic War the task of eliminating the most significant disproportions in the distribution of productive forces required special attention. At that time the social problems of equalization were also already being taken into account, although their solution to a considerable extent appeared first of all as a consequence of the greater and greater decrease of the differences in the level of economic development.

The gains made by the party and the people on the path of the radical change of the economic map of the country during this period are well known. The data cited below on the growth of the two most important sectors of the sphere of physical production--industry and agriculture--are convincing evidence of the attention which was devoted to the development of the economy of the republics which in the past were the more backward (Table 1). Let us cite just two examples.

With an increase of the total volume of output of industry in the country during 1913-1980 by 162-fold, in Kirghizia the increase came to 366-fold (second place after Armenia--391-fold). The small backward outlying area of the tsarist empire, which was deprived of its national status, changed during the years of Soviet power into an industrially developed republic which is serving as an example for the developing countries.

Speaking at the International Seminar on Agrarian Reforms, which was held in 1971 in Kirghizia, Indian scholar G. Parthasarathy said: "I note with pleasure that the bold arrow on the Kirghiz map of international economic relations extends to India. We are receiving from there modern instruments, machine tools and machines, while Indian peasants for the present can only dream of such a level of your mechanization. In this respect Kirghizia can be regarded as a standard for the developing countries of Asia and Africa" [10].

Georgia and Tajikistan are another example of the elimination of the territorial differences in the area of economic development, this time in the sphere of agriculture. The gross output of agriculture in these republics increased during 1913-1980 respectively by 10.2-fold and 10.9-fold, while on the average for the country it increased by 3.4-fold.

Table 1

Growth Rate of Output of Industry and Agriculture*

	Total volume of output of industry		Gross output of agriculture	
	1913-1940 (1913 = 1)	1940-1980 (1940 = 1)	1913-1940 (1913 = 1)	1940-1980 (1940 = 1)
USSR.	7.7	21	1.41	2.44
RSFSR	8.7	19	1.26	2.35
Ukrainian SSR	7.3	14	1.57	2.04
Belorussian SSR	8.1	29	1.72	1.86
Uzbek SSR	4.7	16	1.80	4.63
Kazakh SSR.	7.8	32	1.04	7.65
Georgian SSR.	10.0	16	2.52	4.06
Azerbaijan SSR.	5.9	12	1.56	5.50
Lithuanian SSR.	2.6	58	1.36	1.84
Moldavian SSR	5.8	51	1.58	3.54
Latvian SSR	0.9	45	1.79	1.43
Kirghiz SSR	9.9	37	1.96	3.65
Tajik SSR	8.8	18	2.48	4.40
Armenian SSR.	8.7	45	1.56	4.65
Turkmen SSR	6.7	12	1.48	4.86
Estonian SSR.	1.3	48	1.52	1.84

*"Narodnoye khozyaystvo SSSR za 60 let" [The USSR National Economy After 60 Years], Moscow, Statistika, 1977, pp 176 and 277; "Narodnoye khozyaystvo SSSR v 1980 g." [The USSR National Economy in 1980], Moscow, Statistika, 1981, pp 129 and 205.

Significant shifts in the distribution of productive forces and, as a result of them, changes in the levels of economic development also occurred within the boundaries of the largest union republic, the RSFSR. The construction of the Urals-Kuznetsk Combine and the development of the natural resources of the Far East marked their beginning. The process acquired the greatest scale during the postwar period. During 1940-1970 alone the share of the regions to the east of the Urals increased from the production of petroleum from 6 to 18 percent, gas from 0.5 to 30 percent, coal from 29 to 43 percent, in the generation of electric power from 9 to 26 percent, in the production of mineral fertilizers from 7 to 17 percent and wood pulp from 0 to 21 percent [5, p 101]. This policy of development is also being continued now, it is the general direction for the entire period of the foreseeable future.

The changes in the distribution of productive forces already during the prewar period led to the considerable convergence of individual regions of the country in the level of their economic development. Whereas in 1926 the maximum differences between the union republics and economic regions in the per capita production of industrial output came to 38-fold, by 1940 (disregarding new territories) they had decreased to 4.1-fold. This process also continued during the postwar years. By 1975 the gap in the extreme levels with respect to the same indicator had decreased to 3.3-fold [6, pp 148, 157].

The correlation of the economic regions with respect to the level of the per capita production of the gross output of industry also changed. As is evident from Table 2, the variation spread of the regions with respect to this indicator became more compact: in 1970 there were no longer regions in which the correlation with the union level did not come to 40 percent or, on the contrary, exceeded it by more than twofold. At the same time as this the proportion of regions, in which the correlation with the level of the USSR varied over the interval of 76-160 percent, increased. In 1926 there were 3 of them out of the 14, in 1970--14 out of the 18.

Table 2

Structure of the Economic Regions According to the Amount of the Per Capita Output of Industry*

Grouping by correlation with USSR level, percent	Number of regions	
	1926	1970
Up to 20.	3	-
21-40	3	-
41-50	-	1
51-75	3	3
76-100.	1	4
101-125	2	6
126-160	-	4
Over 200.	2	-
Total	14	18

* V. F. Pavlenko, "Territorial'noye planirovaniye v SSSR" [Territorial Planning in the USSR], Moscow, Ekonomika, 1975, p 97.

The changes in economic development could not but find reflection in the cultural character of the regions and in the standard of living of the population living in them. The gains made in the area of cultural construction and in the elimination of the backwardness, which characterized the spiritual world of the population of many regions of tsarist Russia, are especially impressive. Here are a few most characteristic examples.

In the country illiteracy was completely eradicated, the transition everywhere to a universal secondary education was accomplished. The development of the system of secondary specialized educational institutions and the higher school achieved an unprecedented scope.

During 1914/15 in Central Asia there was only one secondary specialized educational institution, now there are 336 of them. Higher educational institutions existed before the revolution only on the territory of the RSFSR, in the Ukraine, Georgia, Latvia and Estonia. Now such educational institutions exist in all the union republics without exception. Moreover, where they previously did not exist, 968 higher educational institutions were founded, which comes to 22 percent of the total system of institutions of the higher school. Higher educational institutions also exist in all the autonomous republics.

Table 3 gives a general idea of the changes in the area of higher and secondary education during the years of Soviet power.

Table 3

Number of Higher and Secondary Educational Institutions
(at the beginning of the school year)*

	Higher educational institutions			Secondary educational institutions		
	1914/1915	1940/1941	1980/1981	1914/1915	1940/1941	1980/1981
USSR.	105	817	883	450	3773	4383
RSFSR	72	481	494	297	2188	2505
Ukrainian SSR .	27	173	147	88	693	727
Belorussian SSR	--	25	32	15	128	235
Uzbek SSR . . .	--	30	43	1	98	222
Kazakh SSR. . .	--	20	55	7	118	236
Georgian SSR. .	1	21	19	5	192	91
Azerbaijan SSR.	--	16	17	3	91	75
Lithuanian SSR.	--	7	12	13	24	70
Moldavian SSR .	--	6	8	5	22	51
Latvian SSR . .	1	7	10	11	41	55
Kirghiz SSR . .	--	6	10	--	33	41
Tajik SSR . . .	--	5	10	--	30	38
Armenian SSk. .	--	9	13	1	62	65
Turkmen SSR . .	--	5	7	--	36	35
Estonian SSR. .	4	5	6	4	17	37

*"Narodnoye khozyaystvo SSSR za 60 let," Moscow, Statistika, 1977, pp 589 and 590;
"Narodnoye khozyaystvo SSSR v 1980 g.," Moscow, Statistika, 1981, pp 466-467.

The changes in the development of the network of libraries and the increase of the book collection at them attest to the broadening of the spiritual demands of the population. Before the revolution the Central Asian region was deprived of its own library base. At present there are here 11,600 libraries which have 106.4 million copies of books and journals.

The public health system in the country changed beyond recognition. During the period from 1940 to 1980 alone the number of hospital beds per 10,000 people increased by 3.1-fold, and in Kirghizia the increase came to 5-fold, Moldavia--4.9-fold and Uzbekistan--3.8-fold. The corresponding indicator in the republics of Central Asia ranged in 1980 from 99 to 120 and exceeded the level of Great Britain, where in 1978 there were only 84 beds per 10,000 people.

The territorial differentiation in the supply of the population with physicians decreased significantly. After the war (1952) the gap between the extreme republic levels came to 3.3-fold (there were 275 physicians per 10,000 inhabitants in Georgia and 84 in Tajikistan); in 10 years it decreased to 2.6-fold, while in 1980 it was even less--2.2-fold.

The system of the preschool education of the rising generation in practice was set up anew. The number of children attending preschool institutions increased during the same 40 years by 7.3-fold, and in such republics as Uzbekistan it increased

by 12.4-fold, Tajikistan--13.6-fold, Kirghizia--21.6-fold, Kazakhstan--23.7-fold and Moldavia--53.2-fold.

The increase of the monetary income of the population, which is accompanied by an increase of the purchasing power, found reflection in the dynamics of the retail commodity turnover. The increase of its volume was, as a rule, more significant in the republics in which in the past the level of well-being of the population was relatively lower. Thus, with an average increase of the commodity turnover in the country during 1940-1980 by 15-fold it increased in Uzbekistan by 19.8-fold, Tajikistan--23.1-fold, Kirghizia--27.7-fold, Kazakhstan--31.5-fold and Moldavia--33-fold.

Housing conditions, especially of the urban population, changed radically. In all the republics and regions of the country the proportion of available housing without modern conveniences is steadily decreasing, the level of the provision with housing is increasing, the system of settlement is improving--the proportion of families living in a separate apartment is increasing.

The changes in the economic and social spheres of development signify the complete elimination of the unequal status of individual regions, which existed in the past, and the creation of equal conditions for their all-round development in the future.

The problem of equalizing the levels of economic development of the national republics, as L. I. Brezhnev said about this in connection with the 50th anniversary of the formation of the USSR, for the most part has been solved. Precisely this circumstance was the decisive condition of the formation in our country of a unified national economic complex--a new type of organization of the economy. Such a complex could not have originated on the basis of elements which differ sharply in the level of economic development.

However, this does not imply that the need for the further improvement of the distribution of productive forces and the improvement on this basis of the territorial proportions and the development of the economy and culture of all the regions of the country is disappearing. In the Program of the Communist Party of the Soviet Union, which was adopted by the 22d CPSU Congress, it is indicated that "the full-scale building of communism requires the more and more efficient distribution of industry, which will ensure the saving of embodied labor, the comprehensive development of regions and the specialization of their economies, will eliminate the excessive overcrowding of the population in large cities, will promote the overcoming of the substantial differences between the city and the countryside, *THE FURTHER EQUALIZATION OF THE LEVELS OF ECONOMIC DEVELOPMENT OF THE REGIONS OF THE COUNTRY*" [in italics] [4] (the italics are ours--E. A., S. Kh.).

The process of improving the distribution of productive forces is of a permanent nature and cannot be limited to any time frame. It is governed by the differences in the resource potential of individual regions, the national economic expedience of the commitment of some regional resources or others to the economic turnover and the priority of individual regions in the use of the achievements of scientific and technical progress. In this connection the problems of equalization are acquiring a new nature.

As V. V. Kistanov correctly notes, "the need for the more rapid development of some regions or others is now dictated not by their relative lagging, but by the

increased potentials of the productive forces, which make it possible to develop more extensively the natural resources of the regions, to use their production apparatus intensively and to improve the territorial division of labor" [6, p 149]. The very nature of the process of the equalization of the level of development of regions is also changing. The latter should consist to a greater and greater extent "in the elimination of the differences in the intensity of the development of production" [6, p 150].

At the present stage the importance of the social component of equalization is increasing sharply. This is due to the increase of the role of social factors in the development of physical production. "...The increase of the well-being of the working people," as was noted at the 24th CPSU Congress, "is becoming a more and more urgent need of our economic development itself, one of the important economic prerequisites of the rapid increase of production" [3]. This also fully pertains to the problem of the efficient distribution of productive forces.

Migratory processes form far from last of all under the influence of territorial differences in the standard of living. At present the migrations due to this circumstance do not always meet the interests of the development of the national economy. At the 26th party congress attention was directed to the need for the consideration of social factors: "A person leaves, for example, Siberia most often not because the climate did not suit him or the wage was too little, but because it is more difficult there to obtain housing, to get a place for a child in a kindergarten, there are few cultural centers" [2, p 54].

The direct and inverse relations, which exist between the levels of economic and social development, merely confirm the thesis stated at one time by V. S. Nemchinov, who said that "the principle of the equalization of the economic development of individual territorial subdivisions undoubtedly includes the equalization of the standard of living and culture of the population on the scale of the entire territory" [7].

It should be borne in mind that the problem of equalizing the standard of living is at the present stage also of independent, purely social importance. The policy of creating a socially homogeneous society dictates the need for the gradual elimination of the differences in the level of material security and the living conditions of different groups of the population, which are distinguished by family structure, age, health and the type of settlement in which they live (city, village). All this has a pronounced regional specific nature, which was also responsible, in particular, for the demand advanced by the 26th CPSU Congress--to direct special attention to the need for the equalization of the social differences on the territorial level [2, p 54].

The ever increasing importance of the social aspect of equalization should attract the close attention of the scientific community and become the object of thorough scientific studies. The need for this is increasing as a result of the fact that the elaboration of the questions connected with the solution of the indicated problem requires a comprehensive, systems approach and the joint efforts of the representatives of a number of sciences, first of all economics, demography, sociology and social geography.

One of the central questions, with which one has occasion to be faced in this case, consists in the elaboration of the priorities in the solution of the problems of economic and social development and their coordination with each other. The latter can have a different nature subject to the situation in one region or another. Let us illustrate this using the example of two large zones of the country, which are an example of the extreme types of the forming situation--the eastern regions of the RSFSR and the republics of Central Asia.

The successful development of the abundant natural potential of Siberia and the Far East is possible only in case of the adequate backing of the needs of the national economy of the zone with the necessary manpower resources. The severe climatic conditions of the region are complicating exceedingly the task of the creation here of stable labor collectives--or if only the "backbone" of such collectives--and the attachment of the manpower, which is coming here from other regions of the country, and the population.

Until recently the basic role in the set of measures on the attraction of manpower resources to the eastern regions of the country and their attachment here belonged to wages. In this respect specific priority conditions were created for the eastern regions. At present the nominal wage in Siberia and the Far East is the highest not only in the RSFSR, but also as compared with the other republics. A similar excess is also observed in the pay of kolkhoz farmers. Only in Estonia is this indicator higher than in the eastern part of the RSFSR.

However, higher wages stimulate only the temporary attraction of personnel, but not their attachment. But that is precisely how the task stands now, since only a stable collective can work efficiently.

The main prerequisite of the creation of such collectives is normal living conditions, only they can make up for the more difficult working conditions which predominate in the eastern and northern parts of the country. However, the situation in the settlement of this question leaves much to be desired. The situation in the supply of the population with housing is forming especially unfavorably. The increase of the housing supply in the cities of Siberia and the Far East during the period of 1971-1980 occurred more slowly than on the average for the country. As a result the level of supply of housing in these cities is lower than the average for the country, and this gap is not decreasing. At present the supply of urban inhabitants with housing in Eastern Siberia and the Far East is the lowest in the republic.

In the decisions of directive organs, including in the materials of the 26th party congress, the need for the rapid development of the social infrastructure in the eastern part of the country is specially emphasized. The implementation of measures in the area of the further regulation of wages and the introduction of benefits with respect to the education of the rising generation are first of all envisaged for these regions. However, further steps on the stepping up of social policy in the regions of new industrial development are needed. The construction of facilities for cultural and personal purposes should not remain a task of secondary importance. Domestic experience, which confirms the need for the placement into operation of facilities of the social infrastructure prior to the launching of the basic construction operations on the building of industrial projects, is already available. An example of this is the construction of the Kolymskaya GES, which

was carried out on precisely such a basis. The practical experience of developing northern regions abroad (for example, Canada) also demonstrates the advisability of such an approach.

All these are convincing arguments in favor of the fact that the solutions of social problems, including the equalization of the standard of living, are an important prerequisite of the economic development of the eastern regions of the RSFSR and, consequently, the successful development of the entire national economic complex of the country. As applied to the social problems of Siberia and the Far East the priority, which L. I. Brezhnev gave to these questions when addressing the October (1980) CPSU Central Committee Plenum, is as appropriate as possible. Speaking about the drafting of the Basic Directions of USSR Economic and Social Development for 1981-1985 and the Period to 1990, L. I. Brezhnev said: "I began the discussion on these questions not with metal, not with transportation and even not with fuel and energy--for all their enormous importance--but with the questions, on the settlement of which the living conditions of the Soviet people depend most directly. It seems that this is also the party approach itself, when concern about the well-being of the people is made the cornerstone. And from a strictly economic point of view it is more correct to proceed from the ultimate goal to what should ensure its achievement" [1].

A somewhat different situation is forming in the republics of Central Asia. As is known, the region is distinguished by a active mode of the reproduction of the population, which predetermines the high growth rate of the population and the specific nature of its age structure (the predominance of young ages).

This is the region in which at present--and such a situation will be maintained in the future--the main increase of manpower resources in the country is occurring. The problem of the efficient, from the standpoint of the national economy as a whole, use of the manpower resources of Central Asia is arising. The low migratory mobility of the indigenous population of the region is urgently raising the question of the involvement in social production of the contingents which are entering able-bodied age. The lack of a sufficient number of workplaces, which meet the demands of the young generation, can have the result that a portion of the able-bodied population will remain outside the sphere of social production.

What has been said gives grounds to believe that the social development of the republics of Central Asia first of all depends on the further development of the economic potential of the region: preeminence in the overall balance of the problems connected with the process of equalizing the standard of living of the population living here belongs to it. Let us indicate just the primary dependences of the existing ones.

The placement into operation of new industrial projects not only marks the increase of the number of workplaces, but, as a rule, improves the structure of social production. This should affect the average amount of the received wage; create the prerequisites for the increase of the contingent of those employed in social production and the increase of the total fund of monetary receipts of the population in the form of wages; influence the amount of payments from public consumption funds in the portion of them, which is directly connected with the wage fund and is determined by the participation of the population in social production; promote the increase of the level of service of the population, since at present a significant

portion of the need for services is being met by means of cultural and personal service facilities, which are created and function on a departmental basis.

Thus, the improvement of the structure of the national economy of the Central Asian region and the increase of the efficiency of its functioning are not only a means, which leads to the improvement of the proportions of the territorial division of labor within the framework of the unified national economic complex of the country, but also the most reliable guarantee of the further equalization of the standard of living of the population living here, and both along the line of the assets which are received in the form of wages and by means of the payments and benefits, which are received from public consumption funds.

This is an approach with a different placement of the emphases than in the solution of the problems of Siberia and the Far East. As was already noted, the elimination of the lag in the development of the social infrastructure, the further improvement of the territorial proportions in the amount of monetary income being received by the population and the bringing of it in line with the territorial differences in the cost of living (not only in the area of earned income, but also in the area of payments from public consumption funds) are the basic prerequisites of the efficient development of the eastern zone of the country.

Both approaches are equivalent from the standpoint of the movement toward the ultimate goal, since both are oriented toward the creation of a structure of the national economy, which is balanced by regions, the achievement of the conformity of its tasks to the overall strategy of the economic development of the country as a whole and the creation everywhere of relatively equal conditions for the reproduction of manpower. The shifting of the emphases in the direction of the economic or social component of development is governed only by what means of progress in a specific region promises the quickest possible obtaining of the largest integral impact.

As applied to the new conditions of development the content of the very process of equalization also needs specification. The latter is aimed no longer at the elimination of the disproportions in the economic and social development of individual regions, but at the strengthening of the proportionality in each of them and in the economic relations between them and at the prevention of the emergence of discrepancies in the rates of regional development. The overall trend for all the regions of the country without exception is the steady strengthening of the social orientation of the process of equalization. It is not out of place to note that the problem of equalization--in both the theoretical and the practical aspects--cannot be solved in isolation of the other fundamental problems and the trends of social and economic development.

Experience attests that the successful solution of regional problems requires the further improvement of territorial planning, which should be organized on the basis of a uniform strategy of the equalization of economic and social development. In this connection in the works on regional economics it is necessary to devote more attention to the questions of social development and first of all the equalization of the standard of living. At present the indicators of the standard of living in the strict sense are not an object of territorial planning. Here it is impossible not to recall the correct remark of V. F. Pavlenko, which was addressed by him to the sectors of the national economic and industry, but is also completely justified as applied to the question being considered. "The ministries and departments of

the USSR and the sectorial departments of the USSR State Planning Committee draft plans of the development of the sectors of the national economy and industry both for the country as a whole and with a breakdown by union republics and (for some indicators) economic regions of the USSR. But these plans, strictly speaking, are not territorial, since their main object is the sector. In our opinion, in such instances it is more correct to speak of the territorial context of the sectorial plans. In contrast to them in the territorial plans as such a specific territory or, more precisely, the national economic complex located within its boundaries is the main object of planning" [9, p 46].

As applied to the questions of the standard of living such plans are drafted in the State Planning Committees of the union republics, but they are in no way coordinated at the union level, while the indicators contained in them lack directive force and are of an estimated nature.

There is also another significant shortcoming in the sections of the plans, which concern the indicators of the standard of living. The territorial context of the "sectorial" plans (if we use the expression of V. F. Pavlenko) is approved only in the area of the "volume" indicators (the placement of housing into operation, the volume of the retail commodity turnover and so on), while for the purposes of equalization it is important to plan the same indicators, but in per unit terms (per capita, per 10,000 people and so on), as happens in the plans drafted in the union republics, which were mentioned above.

The organization of effective territorial planning dictates the need for the observance of specific prerequisites, which requires considerable preliminary work.

"An indispensable condition of the intensification and development of preplan research on territorial planning is its backing with the necessary statistical information and the strengthening of that section of statistical work, which can arbitrarily be called territorial statistics" [9, p 32]. The improvement of the statistical base with respect to the standard of living should be carried out in many directions: these are the organization of the calculation of the most important statistical indicators (for example, the amounts of the payments and benefits from public consumption funds) at the level of the administrative units which are a part of the union republics; the elaboration of indicators which characterize the state of the fixed capital of the sectors of the service sphere (now when planning only the quantitative parameters of the development of the network are taken into account without regard for the quality of the fixed capital, the level of its engineering and technical equipment); the increase of the representativeness of the data, especially in the area of budget statistics.

Another thing which merits attention is the standardized base. The equalization of the standard of living over the territory of the country should be carried out with respect to the standards of consumption, which are differentiated with allowance made for the specific nature of each region separately. The peculiarities of the age and family structure of the population, the nature of settlement, national traditions and climatic conditions should find reflection in them. At present there is no such standard base, which has been elaborated from a uniform methodological standpoint, has been approved and has mandatory force. Its creation is a complicated matter, and work should be started on it without delay.

The changeover to the more effective planning of the standard of living with a breakdown by territories is an urgent order of the times. The lack of such planning is already making itself felt: in recent years the tendency for the territorial differentiation to increase has been noted for a number of indicators of the standard of living. In particular, this is occurring with respect to the supply of the urban population with housing and the number of hospital bed per 10,000 inhabitants. The coefficient of variation for the union republics increased during 1971-1980 with respect to the first indicator from 8.34 to 9.44 percent and with respect to the second from 5.34 to 7.40 percent. The coefficient of variation also continues to remain very high with respect to the per capita volume of the retail commodity turnover--16.99 percent in 1980. Moreover, in the past 10 years a weak tendency for the interrepublic differences to increase has also been observed here: in 1970 the coefficient of variation was equal to 16.38 percent, in 1975--16.85 percent.

Everything that has been said attests that new problems, which require further scientific studies as the basis of their practical solution, are arising against the background of the imposing successes in the all-round socioeconomic development of the republics and regions.

The memorable anniversary, which the Soviet people are celebrating in 1982, gives grounds for legitimate pride in connection with the achieved gains, at the same time it is creating the need to evaluate the demands which are being made on the further socioeconomic development of society. With reference to the problem in question this is the improvement of territorial planning. It should be enriched with a new content and should become more saturated by means of the development first of all of the social component, the entire set of questions of the development of the economy and culture of both the union republics and the administrative units which are a part of them, as well as the city and the countryside, should be in its field of view. The guarantee of success of the policy on the further improvement of the territorial proportions of economic and social development lies in this.

BIBLIOGRAPHY

1. Brezhnev, L. I., "Leninskim kursom" [By the Leninist Course], Vol 8, Moscow, Politizdat, 1981, p 468.
2. "Materialy XXVI s"yezda KPSS" [Materials of the 26th CPSU Congress], Moscow, Politizdat, 1981.
3. "Materialy XXIV s"yezda KPSS" [Materials of the 24th CPSU Congress], Moscow, Politizdat, 1971, p 41.
4. "Programma Kommunisticheskoy partii Sovetskogo Soyuza" [Program of the Communist Party of the Soviet Union], Moscow, Politizdat, 1976, p 72.
5. Pavlenko, V. F., "Territorial'noye planirovaniye v SSSR" [Territorial Planning in the USSR], Moscow, Ekonomika, 1975.

6. Kistanov, V. V., "Territorial'naya organizatsiya proizvodstva" [The Territorial Organization of Production], Moscow, Ekonomika, 1981.
7. Nemchinov, V. S., "Theoretical Questions of the Efficient Distribution of Productive Forces," "Ot sotsializma k kommunizmu" [From Socialism to Communism], Moscow, AN SSSR, 1962, p 165.
8. Zenchenko, V., "Housing Construction in Siberia and the Far East," VOPROSY EKONOMIKI, No 7, 1982, p 100.
9. Pavlenko, V. F., "Territorial'noye i otraslevoye planirovaniye" [Territorial and Sectorial Planning], Moscow, Ekonomika, 1971.
10. IZVESTIYA, 27 November 1971.

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